

The PHILADELPHIA LEASED TELEGRAPH WIRE
A Private Telegraph Wire of the 1970s-1980s
(by Abram Burnett, 2022)

The Philadelphia Leased Wire was a private telegraph line which functioned in Philadelphia from about 1975 until about 1990. It may have been the last operating telegraph circuit east of the Mississippi, and certainly was the last private telegraph system east in the East. It was paid for by eight subscribers, and AT&T furnished a wire to each subscriber's home. I was a subscriber from late 1977 until a transfer in my employment relocated me to Harrisburg, Penna., in October 1981. I am the last living person who was a member of that wire, so it falls to me to write its obituary. In this paper, I shall describe how the circuit worked and give a description of each of the subscribers

I did not get on the Philadelphia Leased Wire until late 1977. It was through corresponding with Dr. E. Stuart Davis that I learned of the Wire. Stuart Davis contacted his friend Dick Loveland, of Philadelphia, who enjoyed the title of "Wire Chief" of the leased wire, and Loveland called me, and we chatted. As the conversation progressed I made a gentle mention about the possibility of coming on the Wire. In his typical New England style, Dick intimated in a circuitous locution that they were (meaning "he was") not interested in having just any unwashed person come on their wire (meaning "his wire,") and that it would be necessary for him to administer a wire test, and we may be able to proceed after that.

The evening appointed for the Loveland visit came, and Dick Loveland arrived with a KOB in hand. I showed him my operating basement telegraph office (called "SW," because my home was near the Reading RR's **SedgWick** station,) and we sat down for the "wire test." Loveland said that he would send me a delay report filed by an old Passenger Conductor on the Central of Vermont RR in territory where the old-timey Ball Signals were used. If I could copy the message, he said, he would accept me as a "candidate" for the ("his") Wire. (I have never figured out what "candidacy" consisted of...) He sent slowly, and I copied, this message: TO C H H No 6 DELAYED 10 MINS HELD BY THE BALLS AT BELLOWS FALLS SIG JACKSON

I copied along and handed Mr. Loveland my copy. He scrutinized it for a more than a cursory period of time, looked up, and I will never forget his cryptic and not very inviting response: "I guess you will do." An AT&T installer was at my house in about a month.

The leasing of a private telegraphy wire was Dick Loveland's brainchild, and he rightfully felt in charge. He is the one who signed the contract and wrote the monthly check, and received the monthly payments from the members. As he told the story, he had gone to the AT&T office in downtown Philadelphia and asked to see their Tariff book. That request immediately brought a manager out of the back office, who wanted to know who wanted to examine the Tariff, and why. Loveland told the man he was not required to state a reason, but that AT&T, being a public utility, was required to present their Tariff for examination upon demand.

The Tariff was presented, and Loveland read through it until he found an article dealing with Morse Telegraph circuits, which had never been dropped from the Tariff. He asked for the manager to come out again, pointed to the Tariff article, and told him he was requesting such a circuit. The manager's response was, "Telegraph? We have not had any of that equipment for a long time." To which Loveland responded, "It's in your Tariff, and I want the circuit. And don't worry about the telegraph instruments – we have our own."

A contract was signed between AT&T and Richard S. Loveland of 6808 Henry Avenue, Roxboro, Philadelphia, Pa. I do not know the date of the contract, but I believe the circuit had been in existence for about two years before I subscribed. I think the original subscribers may have been Dick Loveland, Ace Holman, and one or two others.

A word about Mr. Loveland. Dick Loveland described himself as a "Connecticut Swamp Yankee." To put himself through the Electrical Engineering program at Rensselaer Polytechnic Institute in Troy, NY, he worked nights telegraphing on the Delaware & Hudson RR in the Albany area. His favorite assignment was "D" Office, the railroad's message office in Albany General Offices of the railroad. He also worked tower and Train Order jobs. Exactly where he learned telegraphy, I have forgotten, but I believe it may have been on one of the railroads which served the area where he grew up, Bristol, Conn. He also worked on the New Haven RR at one time, and possibly for Central of Vermont RR as well. At the time I knew him, he was serving as Assistant Engineer of Traffic Signals for the City of Philadelphia, and was married to a medical doctor, Mary Loveland, who was a genuinely nice person.

The equipment installed in each subscriber's residence was an AT&T "Private Line Station Using Data Sets 108F and 108G," covered by Bell System Practices manual DS 108F & G 1-16, Sect. 591-818-200. The set was mounted so that it was near an external source of AC power, which was required. Near this set, the installer mounted a two-post terminal block to which the subscriber connected his local equipment. The installer left the terminal block "blinded" (strapped out) and the subscriber removed the blinding strap before connecting his own equipment.

I have forgotten the exact DC voltage/current output of the AT&T set, but it was quite sufficient for operating one Morse relay or sounder, without the necessity for a current limiting resistor in series. Because I wished to have telegraph instruments in three rooms of my house, it was necessary to build a repeater and work all my station instruments off the back side of the repeater. Wire Chief Loveland gave me the circuit for a modification of the old Toye Repeater, which I constructed using Mercury-wetted relays mounted in octal sockets. The incoming line worked one of the repeater relays, while the relay on the other side of the repeater was in series with the local Morse loop. After getting on the Wire, I continued to use the office call which I had used for some time at my little talk-to-yourself telegraph office, "SW."

The subscribers equally divided the AT&T charges for the Wire. At the time I joined, I was the 7th subscriber and the monthly charge was slightly over \$20 each. As subscribers dropped off due to retirement or relocation, each subscriber's share of the bill increased. VanDyke, Williams and Bullock (all described below) left the Wire several years after I joined, and Frank Marshall joined after I left. The last element of the wire to function was between Ace Holman's KB Office

in Malvern, Pa, and Frank Marshall's home in Valley Forge, Penna. Frank's office call is unknown to me.

After Ace Holman invented Dial-Up Morse, the leased wire service was terminated, as the AT&T charges were becoming burdensome, being divided between the only two remaining subscribers. I believe Wire Chief Richard Loveland left the Wire sometime in the mid-1980s, to pursue other interests, and this may have left Ace Holman to assume the contract with AT&T for the Philadelphia Leased Wire, but I am not sure of the details.

At the time I left the wire, given increased changes and loss of members, the monthly charge was approaching \$60 per member. I still recall part of the circuit number: 3MRNC6---. If any subscriber wished to report trouble, he called the AT&T test board and used this circuit number for identification. M I remember once calling the test board to report my wire open, and gave the test board attendant our circuit number. He said, "That is a bad number. That M in the circuit designation was for a Morse Telegraph circuit, and we don't have any of those anymore." When I assured him the number was right, he checked again and said, "Okay, I found you." I have always wondered what kind of conversations that led to with his fellow workmen in the office.

This circuit was a normally closed loop and provided full "break potential," just as any telegraph wire would. Occasionally someone's home would lose power and his instruments would go "open." I remember calling the test board one day when the Wire had been open for some time, and the test man told me, "Station 2 is open," and he blinded station 2. Unfortunately, station 2 was Ace Holman. When Ace came home and found his telegraph dead, he called the test board, too, and found out why he was cut off. That night he told me a wedge had "fallen out" of his hand key.

The Wire was hot every evening, and generally there was traffic on Saturday and Sunday as well. Traffic was, of course, conversational, although occasionally some of us would send history articles. Ace at KB and Wes Burnham at KY (whom you will meet later) always met every morning before going to work, and every evening after work. They were both excellent senders – their Morse had the rhythm of music, and they very seldom broke themselves. At my house, I had the wire at my desk in the living room, and in the kitchen and in the basement. And I played the desultory game of giving each set of instruments its own office call, e.g. KN for the kitchen, and so forth, but from whatever station in the house I worked, I always answered to the call SW. All of these instruments, of course, were in one big loop and were worked off one side of my home-made repeater. I do not recall stormy weather having ever affected the quality of the signals over the AT&T circuit. I made a number of cassette tape recordings of traffic on the wire, using a "Morse Box" tone converter made by Dr. E. Stuart Davis, and hopefully those tapes can be digitized some day.

I must confess that it is due to the efforts of Ace Holman, Wes Burnham and Dick Loveland, that my telegraph ability was materially increased. When I first went on the Wire, I could read at probably ten words per minute and was "tied to the stick" (i.e. had to copy by hand because I could not "read it in my head.") When I left the Wire, I could handle almost anything they threw at me, and seldom broke. In sending, my usual speed with plain text was about 30 words per minute, 35 if I "crowded" it.

And they also taught me how to build my own power supplies and wire telegraph circuits. My one regret of my years on the Wire was that I never used the opportunity to master copying on a mill (typewriter,) always preferring stick (pencil) or pen and ink because that was the older method and I am by nature an antiquarian.

MEMBERS OF THE WIRE (Information from notes made 1982)

1. **RICHARD S. LOVELAND**, sined "RD." (See various mentions above.) Born Bristol, Connecticut, 1929. Electrical Engineering graduate from Rensselaer Polytech. Worked for D&H RR and New Haven RR and, as I recall, also for the Central of Vermont RR and Western Union as well. The office calls for all wired telegraph offices in his home were taken from places he had worked during his telegraphing career "D" Office was his main office, in the recreation room of his basement, named for "D" the D&H General Office in Albany. "BA" was in his library, named for Ballston, NY. "GW" was in the kitchen, named for Colonie [sic] Shops, NY. "HD" was the living room, named for White Hall, NY. "IA" was his repeater, named for "IA" the Western Union Repeater Room in Albany. "RX" was in his radio room, named for Maiden Lane Block Station in Albany, NY. "Z" Office was his bedroom, named for Fort Edward, NY. For a number of years running, almost every issue of Dots & Dashes (the periodical of the Morse Telegraph Club) carried some kind of article, either historical or technical, by Dick Loveland.

"Wire Chief" Richard Sheldon Loveland died in Philadelphia in 2001, at the age of 72. I had seen him only twice since leaving the wire in 1981, on the two occasions when he visited me in Harrisburg. He would want it mentioned, in any obituary or memorial, that he also did the amateur radio thing, where his office call was N3IA.

2. **S. (Sherborne) WESLEY BURNHAM**, born 1922 New York City, the son of an electrical engineer, died 2018 on his ancestral family farm, Thetford, Vermont. Hired 1940 as a Telegrapher and Towerman on the West Shore Division of the New York Central RR (which extended from Weehawken NJ to Albany NY, and later called the River Division.) Thence Train Dispatcher and Chief Train Dispatcher on the Hudson Division with offices at the railroad's 466 Lexington Avenue headquarters, thence management jobs also at Lexington Avenue; retired from the System Training Department of Conrail (where he trained Train Dispatchers and new management people in Philadelphia.) Wes, who sined "WB," was a railroad man of the old school, to the core, from sun up to sun down, every day of the week. He was an absolutely excellent sender, and strove for his sending to be methodical and precise, rather than fast. Someone once asked him if he used a computer. His response was, "Learning to use a telephone was a big enough transition for me. I don't need any more transitions." I once asked Wes where he had learned Morse and my memory is that he said West Haverstraw, NY, on the West Shore Division. Although he worked in Philadelphia for a number of years, he kept his home in Croton, NY, and rode the train down to Philadelphia on Monday mornings, and then back home to New York on Friday evenings.

Wes had the Wire in his apartment in downtown Philadelphia, so we only enjoyed his company during the week. It seems that one of the offices where he worked in New York City had a Chief Train Dispatcher who enjoyed spending part of his tour of duty down the block at Kelly's Bar. When someone was looking for him, the code word was, "He is at KY." Wes was a tee-totaller himself, but enjoyed telling that story, and adopted KY for his own office call from those memories of forty years before. At his "KY" office in Philadelphia, he used a Model 15-B sounder from the New York Central RR and the Vibroplex telegraph key he had used during his career as a railroad telegrapher.

For some years, in the 1980s and early 1990s, Wes and I also put on demonstrations at Locust Grove, the Samuel F.B. Morse estate in Poughkeepsie. The exhibitions were held in conjunction with the annual "Morse Day" of the Morse Telegraph Club, on the Saturday in late April closest to Samuel Morse's birthday. The exhibitions were three days in length, Friday, Saturday and Sunday. We had a wire strung through the basement of the house, extending from the veranda ("VN" Office, for the purpose of our demonstrations) to a room at the back of the house variously referred to as "the mudroom" or "Samuel Morse's workshop," which Wes named "PK" (the NYC call for Poughkeepsie.) Tours were conducted through the mansion five (?) times a day, and as groups queued up on the veranda, the visitors were invited to write out a ceremonial telegram, which would be sent by telegraph while they were touring, and which they could pick up at the other end of their tour (i.e. Wes Burnham's end of the wire, "PK" in the "mudroom.") Some of the young kids drew smiley-faces on their telegrams, and we figured out a way to indicate that in our transmissions. But we were stumped cold when someone handed me a telegram written in Japanese. We even had one marriage proposal over the wire... the young fellow handed it to me in confidence, and I wish I could have seen the young lady's face when Wes handed her the telegram.

Ace Holman donated the instruments for "PK" office at the Morse estate and spent several days installing equipment, which included a peg-type switchboard. For "VN" office on the veranda, we used an eight foot folding table and whatever instruments I brought along. One year the weather turned cold and breezy on Saturday morning, and my wife had to drive to a store in Wappingers Falls and buy me a windbreaker. The line took power from a rectifier under the desk at "PK" office in the mudroom. Saturday was always our busiest day and we usually handled around 150 "telegrams" on that day. After Ace Holman invented his Dial-Up Morse apparatus, we installed one of his terminal sets at "PK." A few minutes before Noon on Saturdays, the Morse estate office would turn over its telephone line to us, and at the stroke of Noon Ace would call us from his KB Office in Pennsylvania, and we would work Morse over the telephone line for five minutes. Two telegraph operators who sometimes helped me staff "VN" were Mr. Martin LeRoy of Liberty, NY, and Mr. Charles Steves, who had telegraphed on the New Haven RR and the Lehigh & Hudson River RR. My three sons always accompanied me to these demonstrations at Locust Grove, and they still speak of their remembrances there.

When Wes Burnham planned to retire from his railroad job in Philadelphia, his department made him an offer he could not refuse: If he would stay on the job, he would be given an office in Harmon Shops, just a short distance from his home in Croton, NY, and they would call him when they needed him. So, Wes closed up his apartment in Philadelphia and severed his Wire

connection, and “moved home” to Croton, NY. I saw him many, many times subsequently, at a number of functions across the railroad system, and we enjoyed many meals together. After he formally retired, the railroad retained him as a consultant and he was all over the system, doing special projects. Wes was an excellent detail man, and left no stone unturned on any project in which he was engaged.

Wes Burnham was a Gentleman of the Old School, level-headed, prudent, of even temper and manners, admirably humble in his demeanor, soft-spoken and a great friend. When Wes finally retired from consulting work in the mid-1990s, he spent his remaining years doing what he had always dreamt of doing: raising cows on the Vermont farm which had been in his family for five generations. It was only after his death that I learned that his first initial, “S,” stood for the name Sherburne. Wes had been named for his Grandfather, Sherburne Wesley Burnham, of Thetford, Vermont, who had been a professional astronomer and was credited with the discovery of 451 double stars. (See Wikipedia article on Sherburne Wesley Burnham, 1838-1921.) Wes died in East Thetford, Vermont, May 28, 2018, at the age of 96.

3. **JOHN HENRY (“Ace”) HOLMAN** (1925 - 2005) - Born at Turtle Creek, near Wilmerding, Penna. Ace’s father had been a telegrapher on the Arizona Eastern RR and worked for Western Union in New York City, and had also been a brokerage telegrapher in New York and Philadelphia, and later was a securities broker in Philadelphia. At the age of 16, Ace hired in the AT&T Long Lines Department, working in the massive AT&T central office in the Philadelphia Bourse Building at 5th and Market Sts. His favorite job there was that of equipment attendant, where he was overjoyed to work on everything from test boards to repeaters to Quadruplex sets. By the late 1940s, AT&T was beginning to transition away from Morse, and Ace was glad to carry home equipment which was being discarded. According to his own notes, Ace was transferred to the AT&T switch at Wayne, Pa, in 1956, and then worked in the Pittsburgh office briefly. He retired from an AT&T management position at Wayne, where his specialty was “outside plant corrosion control,” dealing with the electrolytic destruction of the Lead-sheathed cable AT&T had put in the ground over the years before plastic insulations were developed. He said that his nickname, Ace, was given to him by his boyhood playmates.

As the Holman children moved out of the nest, Ace used the free space to put his collection to work. His operating collection cannot be succinctly described in words: one must see the photographs. His doorbell switch was typical of his ingenuity. It consisted of one of those very early telegraph cut-out switches (the type used before the invention of the peg-type switchboard.) To announce one’s arrival at the front door, one moved the cut-out contact lever from top position to bottom position momentarily, then returned it to the top position. This set off some kind of alarm inside the house, the nature of which I have forgotten, and also lit an alarm light on his test board. It was a clever arrangement and gave Ace a number of smiles.

Ace Holman occasionally chided Dick Loveland and myself for “playing games” by putting instruments in every room and assigning them office calls. Surely Ace was right in this assessment, but we did notice him changing after a few years, as follows...

Ace’s office call was “KB,” chosen because the nearest telegraph office to his home had been “KB” Train Order office and Block Station near Knickerbocker’s Quarry on the Pennsylvania

RR's Trenton Cut Off in the 1890s. Ace had a little make-believe crusade to change the name of his town (Malvern) back to Knickerbockers, by which name the area had been called in Colonial times. Perhaps tainted by the flamboyant eccentricities of Dick Loveland and myself, Ace eventually assigned two additional office calls in his home: "KM" was assigned to the message office (actually, just a big table full of instruments, with a chair and message blanks, in his living room,) and the call "K" was assigned to the test board and wire chief's office (which sported a genuine No. 2 Morse test board from the AT&T wire chief's office in Reading, Penna., accurately re-wired by Ace to original specifications !) Yes, Loveland and I had been a bad influence and drove poor Ace Holman over the edge of normality !

As the Philadelphia Leased Wire became increasingly expensive, Ace Holman looked for ways to use the telephone lines to establish Morse telegraph circuits, which would also make telegraphic communication available to those who domiciled in other areas. After a number of experiments in the 1980s, his final resolution was the "Dial-Up Morse Hub" located at his home, which had ten Bell Telephone lines coming into it. Parties could dial in and be connected together with full telegraph make and break potential. To do this, each user needed an Ace Holman-built terminal, which he connected to both his telephone and his local Morse circuit. The system worked by putting differential tones on the telephone line (a tone of one frequency for mark, a different tone for space.) The terminal devices were surmounted by two 255-A can-type biased polar relays which were the favored relay on teletype circuits. They performed flawlessly. My terminal device bears Ace's shop sticker dated October 1990, and he had built a number of others before he built mine.

Ace signed "JH." He was a good and kind and generous soul, who saw right through insincerity, arrogance and pomposity. I cannot imagine that he ever lost his temper in his whole time on earth, or uttered an uncharitable word. My life was greatly enriched by our friendship, which lasted two decades. John Henry Holman reposed on 18 February 2004, at the age of 78. Rest in Peace, my Dear Friend. †

4. **Dr. GEORGE VanDYKE**, retired Naval Commander. Lived in the Torresdale section of Philadelphia, in his retirement was a teacher and lecturer, but I do not recall his field of expertise. George's office call was "VN" for VanDyke, but he came on the wire very seldom (perhaps once a month) and never stayed long. He said his set up consisted only of a key and a sounder. George told me he had been involved in radio since the early 1920s and that he "learned key-and-sounder telegraphy on a naval ship, sending messages on the 'order wires' which linked the various offices of a big ship," which I found very interesting. He also told me that when the "big ships" pulled into port, the telegraph equipment would be connected to a Western Union wire landside, for the exchange of message traffic, and real Morse (American Morse) would be used by the Navy operators. I do not know when George left the wire, or any more of his life's story. George was a gentleman and was always dressed-to-the-nines.

5. **RALPH WILLIAMS**, an electrical engineer living in King of Prussia, Pa, office call "WA" because his Post Office address was WAYne, Pa. Employed by General Electric, Ralph left the wire several years after I joined, and retired to Long Island. Ralph told me that he had been "one of the early amateur radio operators" and maintained his subscription to the Philadelphia

Leased Wire because he enjoyed regaling his fellow engineers and his radio friends with demonstrations of the old time telegraph, of which most of them had only read. If memory serves (but not documented in my notes,) Ralph had also been an electrical engineer for RCA, which had a massive plant in Philadelphia. I do not remember how Ralph sined.

6. **MIKE BULLOCK**, office call "HK." Began his career as a Morse Telegrapher and Towerman on the Boston & Albany RR, and was employed by Conrail as Manager of Station Services at the time I knew him. After I had left the wire and was living in Harrisburg, Mike called and asked me to join in putting on a lecture/demonstration for the Harrisburg Chapter of the National Railroad Historical Society. Since Mike was an entertaining speaker and held awards from the Toastmasters club, he did the presentation and I was just the telegraph operator at the other end of the wire we set up for the demonstration. His office call, "HK," was taken from one of the towers he had worked as a young man on the B&A. I never heard him use his operator's personal sine on the Wire.

7. **FRANK MARSHALL** was a life-long railroader. His father was an NYC telegrapher and Train Dispatcher, and taught him Morse as a child. (It was not uncommon back then for a telegrapher to teach his sons telegraphy: knowledge of Morse was a very saleable job skill for a young man to have.) Frank hired on the New York Central RR as an Operator and Towerman and eventually was promoted to Train Dispatcher (at Buffalo, I think) and was Terminal Superintendent at several places, as I recall. At the time I knew him, he was General Superintendent of Safety on Conrail, with offices at system headquarters in Philadelphia. He came on the Leased Wire after he retired, but by that time I was no longer on the wire and do not know what office call he used.

When I first met Frank, I was Supervisor of Operating Rules on the Harrisburg Division. I was fortunate to have as my Clerk a gentleman named Ralph Spangler, who had hired as a telegrapher on the Reading RR in 1948 and had also been a Train Dispatcher. Ralph sined "AP" on the wire. I asked him how he acquired the operator's personal sine "AP", and he told me those were the initials of his girlfriend, who eventually became Mrs. Spangler. I put a set of instruments on Ralph's desk and a set on my desk, hid a power supply in a cabinet, and ran a wire over the ceiling tiles. His call was "MY" (for Myerstown, where he lived and had learned Morse,) and I do not remember what office call I used. Ralph said we had the "shortest operating telegraph line on Conrail." Every new Superintendent we got, and many of the bosses who visited from Philadelphia, put us to the test and made Ralph send a message to me, the copy of which they scrutinized for accuracy. They were all amazed that we could "talk on that thing."

So, one day, in walks Frank Marshall, the General Superintendent of Safety from system headquarters, whom I had never met. He saw the instruments on Ralph's desk, seated himself, and began sending. When I came out of my office, he cut loose with a string of extremely fast Morse, using the Vibroplex. It sounded like hail on a tin roof and I had never heard anything so fast. When he finished sending he closed the key, looked up at me, laughed heartily and said, "You got that, didn't you...?" We became good friends after that. He told me that in his younger

day he had “scooped” (picked up extra work) on WU and press circuits, which accounts for his speed. Frank Marshall sined just “M”.

I have no doubt at all that our little inter-office wire was the last set of telegraph instruments which functioned anywhere on Conrail. When Ralph retired, I removed the system and took it home. Not long before his death, “AP” asked me to bring him a key and sounder – he just wanted to hear the sound of Morse again. I set them up in his home, and powered them.

After his own retirement, Frank Marshall joined the Leased Wire with Ace Holman. They were the last two offices on the wire at the end of its existence. I do not know what office call Frank used from his home in Valley Forge, and I do not know the year Ace and Frank agreed to call its quits on the Wire, and cancelled the contract with AT&T.

8. **ABRAM BURNETT** - For the sake of anyone who may be curious in future years, the present writer should say a few words about his own situation as a newcomer, the least-of-the-least on the Philadelphia Leased Wire.

The first flash of the telegraph lightning for this soul occurred at the age of about six, when his father took him into “MH” telegraph office at the Roanoke (Va) depot. I was absolutely enthralled by the sound of all the instruments working, although no explanation was offered. A few years later, I saw Morse again at “DO” Office, 16th Street, West Roanoke, and there I was able to get a closer look. On Sunday afternoons, I would sneak into “DO” and look around, hoping the Yard Master did not come around the corner and throw me out. “DO” was full of Model 17 sounders, working fast and giving off that chant-like ring which only a 17 can give. The Operator at “DO” was always busy with a small CTC machine which controlled a number of crossovers, switches and signals on the Running Track and the Westbound Main Track from 16th Street to west of Shaffers Crossing, so he had little time to pay attention to the kid sitting in the corner and taking it all in.

In those days, young boys enjoyed hanging around the depot after school or in the evenings, sitting on the baggage wagons and watching the trains, and in a weak moment the operator accented to my request for Morse telegraph lessons. In the evenings, when things were quiet, he would send to me using a big Model 17 sounder (which is the reason I still love the 17's.) After about three sessions on the alphabet and numerals, he hit me with some sentences from the evening newspaper for a couple of lessons, and then went right on to Train Orders and he never backed off. He had been a telegrapher on the Southern Pacific between El Paso and Tucson, and the rest of my learning was spent copying the Train Orders he had copied out on that single-track, desert railroad. I loved it and picked it up very quickly. In the matter of about six or eight weeks, I had the rudiments down pretty well, including some of the Wire Signals and a few telegraph abbreviations. My father brought home a key and sounder from the railroad and I built my own set powered by lantern batteries. But when the N&W retired the telegraph wires at my haunts shortly before 1960, the only Dots and Dashes I heard for a number of years were those I made for myself, with instruments mounted on a piece of plywood. I hired as a Brakeman in 1964, running west out of Roanoke.

The rising from the ashes, Phoenix-like, was when I met Stu Davis in the late 1970s and got on Dick Loveland's Philadelphia Leased Wire (story above.) Those fellows took me from kid-level telegraphy, to something better. They were all professionals who had been around Morse for decades, and I was very blessed to have them as mentors. I found plenty of practice just listening to them chatting on the Wire in the evenings.

As soon as I learned that each telegraph operator used a "personal sine" for identifying himself on the wire and for marking his messages, I immediately chose the character "&" {Dot-space-Dot-Dot-Dot} as my sine. Why "&" ? Because it speaks to one of the several credos, or life-principles, of my life: audiatur et altera pars (translation: hear also the other side.) Sometime later, when Stu Davis learned "&" was my sine, he said quite abruptly, "You can't do that!" And when he wrote to me (everything was by mail-and-stamps, back then,) he always addressed me as "ES," not as "&." Telegraphers will understand.

Above I have told the story of building the repeater I was obliged to fabricate in order to operate more than a single Morse receiving magnet in my house. The wired offices in my house eventually were: Living room, "RO" for Essington, formerly Lazaretto. Dining room, "CF" for Eddystone. Kitchen, "KN" named after Lamokin. Bedroom, "CU" for Chester, Pa. Sun porch, "CK" for Darby Creek. The kids' room, "GD" (call arbitrarily chosen by one of my sons.) Guest bedroom, "GR" for Edge Moor. "RW" was the repeater room in the basement (for Thurlow.) "RJ" was the battery room (for Eastwicks, Pa.) And "GF" (for Grays Ferry) was the picnic table in the back yard, to which a wire would be run on occasion.

My longsuffering wife followed me around the house, stuffing pencils in all the chattering sounders. Like most wives afflicted with a telegraphing husband, my wife did not know a Dot from a Dash. But she very quickly learned the cadence of my office call, SW, and could also distinguish the rhythms of the sending of the operators on the wire. When I came home from work, she often said, "Ace was calling you," or "Dick was calling you." Interesting, is it not...?

This fantasy came to a sudden halt when I was transferred from Philadelphia to Harrisburg. The moving van came on the day before Thanksgiving, 1981. I arose early to say good-bye to Ace Holman, then cut the wire and strapped out the AT&T terminals. A good thing had come to its end. I would not hear the sound of live Morse again until Al Gore invented the Internet.



THE NATIONAL TELEGRAPH WIRE OF UNION, NEW JERSEY. This was the Stu Davis wire, of which I believe no account has ever been written. It operated for a brief period in the 1970s, in the area of Union, NJ. Stu designated his operating telegraph office as "UN" and called his leased circuit the National Telegraph Wire. The only other subscriber to this line known to me was Cdr. Edwin Jennyss ("Jay") Quinby, USN, 1888-1981, who was related to both Alfred Lewis Vail (1807-1859,) maker of the first telegraph instruments, inventor of the Dot-Dash code and business partner of Samuel F.B. Morse in the Magnetic Telegraph Company, and also related to Theodore Newton Vail (1845-1920,) President of American Telephone & Telegraph Company.

When Western Union made the decision to close its company museum at 60 Hudson Street, New York City, in 1973 (?), Stu Davis was hired to triage the collection. I should have asked him for details, but did not. Most of the items probably went to the Smithsonian. Some items went to Stu Davis' own collection, e.g. the top of a telegraph pole from Promontory Summit, Utah, where the Transcontinental Railroad was joined in 1869. I know he also had a number of filing cabinets of documents from the WU museum.

As his contribution to the nation's Bi-Centennial in 1975, Stu Davis got up and published The Phillips Code, Bi-Centennial Edition, which contained a reprint of the final Phillips Code edition (1925,) and this was published spiral-bound, in 1975. This book also contained an Introduction written by Stu Davis and a single-page biography of Walter Polk Phillips. There was, in addition, a listing of 43 abbreviations adopted into press telegraphy in the 1930s; a listing of some Wire Signals; the abbreviations used in service and traffic department messages; a three and one-half page "Market Supplement" which listed the wire abbreviations used by brokerage and commercial market telegraphers, and also a "Baseball Supplement"... yes, baseball games were transmitted by telegraph in the old days. The little books were sold for \$5.50 each. Stu gave me two copies, and I have used them for 45 years. I asked Stu about some of the particulars of his booklet, especially his source for the Wire Signals. He told me that, in nailing down some of this information, he had consulted with some longtime friends who had worked the fast telegraph circuits (press and brokerage,) and they had pooled their memories. There were no sources to consult; these men were the sources !

After the cassette tape recorder came out, Stu Davis realized its potential for keeping Morse alive. But so that the recordings did not have to be done acoustically, he designed and built a number of tone converters, to work between a Morse telegraph loop and a cassette recorder. When jacked into a Morse loop, these devices would follow the Morse circuit and output to the tape recorder a tone signal for the marks (the spaces were not represented by any tone value.) Or, for play-back, these devices would use the tone signal output from a cassette recorder to bias a transistor, which would switch a Morse loop open or closed. These devices came to be known as "Morse Boxes" and I believe Stu began building them in the late 1960s. Stu gave me one and drew out, free-handed, the schematic and marked it "Mark III 1969." I do not know how many of these devices Stu built.



More information on the persons mentioned above, with photographs, can be found in these small monographs prepared by the writer of this present document:

Dr. E. Stuart Davis' "UN" Telegraph Office, Union, New Jersey, circa 1977 (latest rev. Nov 1, 2015) Includes photographs.

The "Morse Box" of E. Stuart Davis, E.E., Ph.D., circa 1975 (latest rev. July 29, 2015) Includes photographs.

The "MORSE BOX" of John Henry ("Ace") Holman (latest rev. Feb 13, 2014) Includes photographs.

PAGES AT ANCESTRY.com

BURNHAM, Sherburne Wesley 1922-2018 Railroad Telegrapher etc at Ancestry.com

DAVIS, Erwin Stuart, Ph.D. 1909-1983 Electrical Engineer, Inventor, Telegrapher at Ancestry.com

HOLMAN, John Henry ("Ace"), Jr 1925-2005 Telegrapher at Ancestry.com

LOVELAND, Richard Sheldon 1929-2001 Electrical Engineer and Telegrapher at Ancestry.com

QUINBY, Edwin Jennyss "Jay" 1888-1981 Electrical & Mechanical Engineer, Commander U.S. Navy, Author, Calliapist & Telegrapher at Ancestry.com

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(Any future revisions will be indicated by a revised date in the file name.)