

WIRELESS AND RADIO HISTORY OF CONAN WYATT BURTRAM BARGER

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Conan W.B. Barger writes:

At the age of nine [my family] moved to Des Moines, Iowa.* The QTH [home] was 1314 26th street. While at this location a couple of my schoolmates invited me to be a member of their wireless club. To join I had to draw a circuit of a crystal detector using loose coupler and aerial. I had to be able to memorize the code and write each letter, a .- , b -... , etc. I studied hard but the first exam I failed by not being able to write the code correctly. Again I tried in about three weeks and passed. Boy, I was one happy kid. Well, in about a year at this QTH my folks had another harmonic [*i.e.*, child]. For a Christmas present I was presented with a little baby sister. When I was the age of twelve, we moved to a better location, 1340 45th street. My Dad started up another business college and was quite proud of his family. I joined the Boy Scouts and became very much interested in the merit badge pertaining to wireless.

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^{*} I first saw the light of day about 8 AM September 13, 1907 at Locana, Iowa. Like all kids I drank enough of my mother's milk until I grew up to be a fat little red headed duffer, labeled Conan Wyatt Burtram Barger. When I was about six years old we moved to Fort Dodge, Iowa, where my Dad started his first business college. While there my folks said that I had a yen for mechanical gadgets and would take clocks apart and try to put them together with no luck. Also I had a yen for picking up stray dogs. I have always liked dogs and dogs seemed to have a special liking towards me and these strays would come out of "nowhere" and follow me home. We lived in a boarding house and the living quarters were crowded and my folks said "NO" so there was nothing left for me to do but turn to my four-footed friends, after they had their three squares, out in the "cold." One day a big dog followed me home. This dog was the biggest dog I had ever seen. He stood up to my shoulders. He must have been part mastiff. I begged my folks with tears to let me keep him. My Dad said, "Son, that is a valuable dog and belongs to someone. I will put an ad in the paper and if no one claims him you can keep the dog." Boy, I was happy and of course hoped that no one claimed the dog. The next day after the ad was in the paper a man came and said that was his dog. Mike, Mike was very glad to see his rightful owner again. My heart sank. Before the owner took the dog my Dad suggested to have a picture of me with Mike. So, arrangements were made with a local photographer to take my picture with Mike, I have that picture today that shows me sitting on a high stool with Mike's head on my knee and hand on Mike's head. The first car that my Dad had was a Hupmobile and some of you old timers will remember that car, I am quite certain. The Hup had gas lit headlights and whenever we were to go driving at night my job was to light the headlights and taillight. The old Hup was a good car, and we had many enjoyable tours. In those early days there were not many automobiles on the road. The Hupmobile, Ford, Stanley Steamer and the Aperson Jack Rabbit were some of the most popular. Most of the transportation was via horse and buggy and many runaways occurred, some of them resulting in very serious consequences. Dirt roads were the only means of travel and you had to be very careful when it rained else the car would get stuck in sticky lowa black mud.

The previous club experience that I had when on 26th street helped me a great deal in earning the merit badge. My folks said that I dotted and dashed so much that they got irritated.

One night I heard crashes in the form of dots and dashes. It made me wonder where those crashes were coming from. So the next day when the crashes were booming I got on my bike and went over to the next block and found the house where those crashes were coming from. I went up to the house, knocked on the door and a friendly fellow came and said, "Hello, young man. What can I do for you?" I told him that I was a Boy Scout and that I have been hearing dot and dash crashes for the past week. He invited me into his wireless room and said that he was QSO [i.e., in contact with] with his friend Albert Tingly, [callsign] 9DEH on the other side of town. I sat there in amazement to think that this person was using the code to talk with his friend 9DEH, I was thrilled beyond words and watched this operator carry on his QSO for about half hour. When he finished, he started to explain to me the workings of his sending set and crystal detector. My interest was intensified to the bursting point.

I will never forget this kind fellow whose name was Joe Dobbins and his call 9OA. Our friendship lasted for several years and he encouraged me to get on the air and said that I could use a Ford spark coil and wind a tuning coil on a Quaker Oatmeal carton and use a bronze "cat whisker" for a receiver. He drew out a circuit for me to use and said that I needed a pair of headphones and that Garver Hardware in town had the Murdock headphones.

Well, when I went home there was nothing else for me to do but get my wireless station on the air. That was the year 1919, the post war year, so I had a clear shot to get on the air. Finally, I got my receiver working and got the thrill of my life when I could pick up Dobbins with the very receiver that I built. Also, I tuned in 9DEH - what a thrill. The next thing was to get my sending set going. My Dad had a Ford touring car and as you know a four-cylinder Ford had four spark coils. So, nothing else to do but take a coil from the car and I would have enough juice to make a spark between two nails. For battery I got several 1-½ volt dry cells and for a key I made one using a hack saw blade for contacts and for a knob I used an empty thread spool from my mother's sewing box. I put up a four-wire flat top aerial. For a red headed kid of twelve I was as happy as two bugs in a rug. Wire and Quaker Oats boxes were all over the place. I would spend most of my time down in

the basement winding and rewinding coils, making helix coils out of ½ inch copper ribbon for my almighty Ford spark sender. My folks had to call me for supper at least fifteen times and when I got to the table my appetite left me - my stomach was too full of wire, cat whiskers, Ford spark coils, galena crystals, etc. My folks started to wonder what had happened to their boy. My mother said that they thought that I was getting a little dappy.

Joe Dobbins started me on this wonderful road of wireless and I will never forget that kind face of his and how much interested he was to get me on the air. Dobbins was an old ship operator and as you know amateur radio was first started by a group of ship operators who already knew the wonders of wireless. Dobbins told me to get the book "All About Wireless" - a book about half inch thick. In those early pioneering days not much was known about the wonders of wireless.

Finally, I got my station on the air. My fist [i.e., Morse code sending quality] was pretty sloppy and my code copying was s l o w. I had to copy down the dots and dashes and translate later. One day after scratching the galena crystal with the cat whisker to find a sensitive spot I heard another one of my friends, Glen Case 9BOG. When he signed off, I called him and I was thrilled beyond words when he came back, "CB CB de 9BOG - call me on the telephone - CB de 9BOG k". That was my first DX [distant contact], 3 blocks away. I scrammed up to the telephone and called Glen. He wanted me to come over to his house. I jumped on my bike and was soon in another wireless room. Glen had a ½ KW [kilowatt] Thordarson spark coil, a rotary gap, four wire flat top aerial, loose coupler, galena crystal [detector] and a pair of Brandis head "fones" for receiv[ing]. We talked for hours and he gave me more info regarding wireless. He said for me to get my license as soon as possible. In those early days you could use initials for a call until the RI [Radio Inspector] came in your area and when the RI arrived you had to pass the exam or stay off the air. The RI, Mr. Turner, me my exam and low and behold, I passed. The code speed was ten wpm [words per minute] and the written exam was quite extensive about crystal detectors, spark senders, aerials, damped waves, etc. Everything had to be written out and it took me most of the day to finish. My first call was 9DAI and that was 1920.

What a thrill it was to sign my call. I got QSO with 9BSZ, Don Usher, who invited me to come over to his apartment, which was about half mile from my QTH. Don had a Quench rotary spark gap, and I can well remember when would take off the cover of the rotary gap and fill the room

with pure ozone - boy that smelled good. Don was another good operator and could copy the code a good 15 wpm. I worked Don many times and he helped me a great deal in getting my station perking.

The wireless bugs were crawling all over me by this time, and my interest was so keen that I almost lost the habit of sleep. Such actions soon diminished my school grades and my folks put their foot down. I could only operate my station a few hours per week. When Saturday and Sunday came around I could pound brass [i.e., work the key] all Friday and Saturday nights if I wished and believe me I wished about every weekend. The old Ford spark coil gave my Dad the fits because some time I would forget to put the coil back in the car. One day my Dad got me out of bed about six in the morning and told me in firm words to get the lead out and put that coil back in the Ford - he had been cranking for about an hour trying to get the flivver going. Finally, I went down to a junkyard and found a Ford coil and from then on, my big problem was solved.

In the early 20's the vacuum tubes started to come on the horizon and there was only one thing to do, get me a Cunningham 5 watter [vacuum tube triode, handling five watts of power]. If I remember correctly the price of the tube was eight dollars and to me that was a lot of money. I asked my Dad if he would buy one for me and he said, "Son, you mow lawns, paint, carry out the ashes and if you work hard for your money I may help you out with a few nickels."

Well, I went over the neighborhood and cut a trillion lawns for 25 cents each. After I had groaned and sweated for about three weeks pushing that lawn mower I had five dollars and fifty cents. Dad and I jumped in the old flivver, went to Garver's Hardware and he put the extra two fifty for my precious Cunningham 5-watter. Fred Kirshner was the head guy at the wireless department at Garver's. He was an operator and I remember him saying words to this effect, "Your boy, Mr. Barger, has been down here many times and is very much interested in wireless and will make a good operator, I am sure." Those words from Fred made me feel good and I could tell that Dad was glad to hear those words.

With my constant mowing of lawns, I subscribed for the *QST* [magazine of the American Radio Relay League, ARRL] and in the *QST* there was a circuit using the Cunningham tube using AC on the plate. That was my first tube transmitter and it worked. For filament voltage I got an old

storage battery that a fellow at the junkyard gave free. For plate voltage I got me an Acme transformer. That transmitter gave me a lot of service until one day the tube gave up the ghost. My heart sank and I was one unhappy kid, believe me. By that time, I was getting pretty well known as the "Red Headed Grass Cutter" and a few 25 cent pieces were coming in fairly regular. With other work like selling rabbits, I soon had enough money to buy two Cunningham 5 watters. The QST had another article how to make a self-rectified rig and that was my next venture. For an antenna current indicator I had a Hoyt Hot Wire ammeter. Then came some articles how to make a chemical rectifier so that you could get DC voltage and a clear whistle note. So I got my mother's jelly jars, two gallons of distilled water and a box of 20 Mule Team Borax and mixed up a solution. Got enough lead and aluminum to make the plates to place in the mixed solution. The rectifier circuit was a bridge rectifier and of course the more "slop jars" you had the more current you could pull. My first rectifier was too small; when I would load up the rig the jars would boil over. I got some more of my mother's jelly jars and built up a rectifier that would stand the load. Trouble started when my mother started her yearly canning program. She found no jelly jars and when she found her good jelly jars in my wireless room full of messy sloppy solution, she raised the roof. I had to clean every one of the jars and give them back to her and mow some more lawns so that I could buy my own jelly jars. Those were trying days for all concerned.

Frank Sadalick, 9AFM, was one of my good friends. Frank was much older than we "Young Squirts." [He was a] man of about 45 who had a nice family, two boys and a girl. 9APM was quite a fellow, indeed. Frank was the sales supervisor for the Perfection portable kerosene heaters. He had built several tube transmitters using "slop jars." When we would visit him, he would explain the latest circuits for transmitters and receivers. Another good friend of mine was Homer Hamilton. Homer was not a radio enthusiast. His main attraction was Boy Scout work. However, he would help me wind coils, put up aerials, mix borax solution for my chemical rectifiers and help build model airplanes from material that we got from the Ideal Airplane Company. Mapes Stanly was another good friend who was quite a moving picture enthusiast. Mapes would put on a movie demonstration at our radio club many times showing Charlie Chapman and many of the old movie pioneers. Mapes moved to Hollywood and I lost track of him but have well imagined that he got connected with some big movie producer because movie work was his main interest as radio was mine.

Charles Vester was another good friend of mine who was very much interested in radio. Charles was about the same age as me, and [from] a nice family of two daughters. Charles was a member of our radio club and he studied hard so that he could pass his exam when the RI made his annual trip Des Moines. I can well remember when Charles went down to take his exam. Everybody passed but Charles - he was one unhappy person. We felt bad about that. Each one of us in the club spent a lot of time getting him up on his theory and code. When the RI came around the next, year Charles passed his code and theory with flying colors. Our club celebrated the occasion with a banquet in his honor. Charles Tester was one of the most active amateurs in Des Moines.

I bought [a vacuum tube triode], an RCA 201A (still have it) and built a tube receiver using a regenerative Reinartz circuit. For plate voltage for the receiver, I went to the dime store and bought a batch of flashlight batteries and connected them in series until I got about 45- or 50-volts DC. The receiver worked good and many signals could be heard. With the tube transmitter and the tube receiver my operating skill increase, and I began to make contacts several hundred miles from Des Moines. My folks were amazed when I would tell them that I talked with a fellow in Chicago, Detroit or Omaha.

Back in the early 20's most of us amateurs used the straight key for pounding brass. Many Friday and Saturday nights I would be at my station pounding the key all night. One morning my arm was as stiff as a board. I had the well-known "GLASS ARM." My arm felt just like a hunk of glass. I tried to send with my left hand, but the results were not very good. The *QST* came out with an article how to make a bug key. I fashioned one according to directions using a clock spring for the vibrating mechanism, brass bolts and nuts for the contacts, etc. By using this homemade ["] vibroplex ["], my glass arm disappeared. Many of you old timers can well remember the "GLASS ARM" epidemic and the cootie key that would give that famous "Lake Erie Swing."

By 1923 there were quite a few amateurs in Des Moines. Several of us got together and organized a radio club called The Capital City Radio Club. Membership included Fred Crowell 9DIP, Jack Duncan 9BRS, Glen Case 9BOG, Mack Sweighart 9CLQ, Shorty Tarr 9TR and a few others that for the life of me I cannot remember their calls. We would meet at the various

homes of the membership and discuss our latest construction programs, who we worked on the air, etc. Every year at Ames, Iowa there was a get together of all amateurs throughout the state. This convention was called "Radio Short Course" and of course our club was represented. One year our club put on a short skit titled "Pity a poor sailor on a night like this." The locale was on board a ship and it was raining and storming. I was the radio operator, 9DIP was the Captain, 9BRS was the First Mate, 9TR was the sailor who came out of the storm in the room with water dripping from his raincoat and could barely say "Pity a poor sailor on a night like this" while I was trying to send SOS on the broken-down transmitter. BRS and DIP rushed in the radio room and said that the ship was sinking fast. We all held our noses giving the impression that we were going down to Davy's Locker. We had a lot of fun giving that skit and the audience really enjoyed it. I remember one year that Mr. [Arthur] Collins, the producer of the famous Collins receivers and transmitters, gave a talk on PI network for tuning the final amplifier on a CW rig. After he finished giving a long discussion I went up to the platform and introduced myself. I shook his hand not knowing then that he would someday be a famous radio personality. For years I kept contact with Collins via radiogram.

I can well remember when the ARRL [American Radio Relay League] sent Paul Godley, 2ZE, to Europe in 1921 to see if amateur radio could be heard across the pond. Thirty American amateurs were heard. And in 1923 amateurs accomplished the first transatlantic communications. I heard Fred Schnell, 1MO and John Reinartz, 1XAM working Deloy French 8AB on 110 meters. Many nights I stayed up all night trying to hear 8AB. The integrity, ambition, determination and resourcefulness of the radio amateur developed the high frequencies - no question about it.

Finally, the Amrad S tube, a cold rectifier, came out and of course that gave us fellows a new look on rectification. Much building and radio contacts were made until it became a common thing to get on the air and work stations all over the country. I worked Don Wallace, 9ZT, many times when he was at the University at Minneapolis, Minnesota preforming extensive experiments with Professor Jenkins. Don is now 6AM at Palos Verdes Peninsula, California. Frequently I keep in touch with Don via radiograms.

Time rolled along at a fast clip. I built and rebuilt transmitters and receivers. Our radio club grew and one year, I believe it was 1925, our club

made reservations for a booth at the Iowa State Fair. We took a tuned plate, tuned grid transmitter along with a tube regenerative receiver with the idea that we were going to send messages for the general public. Tingly 9DEH was there with his rock crusher giving demonstrations and of course when that spark rig was on the air we had to QRT [cease to operate] due to the terrific QRM [interference] that King Spark caused. King Spark died hard and 9DEH was a staunch spark operator and he turned up his nose at the little vacuum tube. After midnight 9DEH was off the air and then we had a hay day. We were able to get a lot of traffic from the people and made schedules with the Chester, Pa. Radio Club who kept operators at their station so that we could clear our traffic. We operated from midnight to daylight and if 9DEH overslept we could operate in the daytime. We had a wonderful time and handled lots of traffic. Those were great days, and I can remember them vividly. At home I constructed all sorts of aerials: cage, one wire, five-wire flat top, counterpoise, etc. My Dad, Uncle and his two boys helped me install a fifty-foot mast, which was my pride and joy.

In 1927 we moved to Denver, Colorado. It was ruff saying goodbye to all of my friends, fellows that I had associated so closely with during the early pioneering days of wireless and radio. I will never forget those exciting days. Days filled with wonder, adventure and thrills.

The Federal Radio Commission changed my call to W9CVE. I reconstructed my tuned plate tuned grid rig using two RCA 7-½ watters. I heard a new group of stations and soon made a schedule with W7AAT, Orvil Viers at Red Lodge, Montana. I had a lot of pleasure in handling traffic and got a lot of messages to be relayed from my neighbors. During the Chicago World's Fair I kept schedules with W9USA and was able to take a lot of his westbound traffic.

I went down to the Radio Inspectors office and took an exam for a 2nd Class Radiotelegraph license with the intention of getting a job on board ship in the Great Lakes. Edwin Heiser was the RI and the date of my exam was January 16, 1934. However, because my Dad was out of town on business trips, I had to stick close to home and help take care of my Mother and Sister. So I went up to the Western Air Lines in the city and applied for a job. The Chief said that I could fill in when the three ops were going on summer vacations. The pay was good. Twenty-five dollars per week in those days was a lot of money. I worked the fast CW circuits and enjoyed the work very much. My employment with the Western Air was about eight or

nine months. They were starting to use teletype and, of course, the CW circuits were being phased out.

I heard that the Postal Telegraph was in need of Morse operators. Not knowing the American Morse, I went to the Denver Opportunity School and took a course in Telegraph. Mr. Foy was my instructor and a mighty nice person indeed. Mr. Foy was an old telegraph operator who could make good copy at 70 WPM! He sold me an old Vibroplex™ that he used to use on the wire for two bucks - that was the first bug that I had ever owned, and it worked excellent. Mr. Foy spent a lot of time with me and soon I was able to make good copy at 30 wpm. He got me a job at the Postal and I worked there for several months. When those sounders would go along at 30 to 35 wpm, I could make good copy but [when] I got on a circuit going 40 to 45 wpm my copy was pretty bad. Knowing the Continental Morse first I would find myself putting down e instead of r, ie instead of c, k instead of f and the numeral 5 instead of p. I can well remember that the circuit to Omaha was a fast one and if I had to take that copy I had a dickens of a time. The supervisor was a good fellow, and he knew both codes and would fill in the mistakes on the finished copy. When all those sounders were going at the peak of day, about thirty, it sounded like a swarm of bees, but each Morse operator could recognize his own sounder no matter if he was taking a five, drinking a cup of coffee. It is fantastic how some of those old timers could copy that stuff 50 to 70 wpm. I can well remember when I would come on watch at 3 PM there was an old timer who had been with the Postal since he was a kid. His sounder was rattling at least 60 wpm and he was copying with ease. He would greet me and start talking asking questions while copying and that mill was typing like mad. I did not say much because I thought I might interrupt his copy. He would say, "Come on Red, talk to me." When I realized that he could carry on a conversation with no mistakes we would talk back and forth with no bind. After that sounder stopped, he would keep copying at least ten words, rip off his copy, hand it to the supervisor and go home. Remarkable! When the Western Union started to merge and absorb the Postal the Morse operators were being laid off.

During the 30's an operator who held a Commercial Radiotelegraph ticket could work for a BC [broadcast] station with the proper endorsement from the RI. My first BC job was with KFXJ and when they moved from Denver I went with KFEL and worked there as Chief Engineer for several years. When KFSL was scraping the barrel, I was in the "mill" again looking for another job. KFEL had their studios in the Albany

Hotel. The transmitter was located a few miles from Denver. Gene O'Fallon was the owner, quite an interesting fellow, indeed; Frank Bishop was the assistant manager, another fine person. Ed Franklin and Fred Graham were the two announcers and two of the nicest fellows you could ever meet. Herbert Salisburg and Earnest Sams were two other engineers that I had the pleasure of working with. My tenure with KFEL was one of the most enjoyable positions that I have ever had in the BC field.

My next job in the Broadcasting field was with NBC, KOA at Denver. My main job with NBC was assisting the construction of the new studios in the Knight Campbell building. This studio was an exact duplicate of Studio A at Radio City in New York. This was a very interesting assignment, and I had the extreme pleasure of working with two splendid persons, Tommy Phelan, Chief Field Engineer for NBC and Gordon Strang, Chief Construction Engineer for NBC. Robert Owens was the Chief Engineer for KOA, another fine person. This new studio was the last word in acoustical perfection. Reverberation was at the minimum. The studio measured about 75 feet by 150. The floor was floating. You could whisper at one end of the studio and be heard with fair audibility at the other. The reproduction of an orchestra was excellent. In the audio control booth were high quality amplifiers with flat frequency characteristics from 5 to 10,000 cycles. The control booth operator had a very important job because he had to mix the music so that the high, medium and low frequencies would reach the Master Control with the proper balance. Separate microphones were placed at the violin and piano, horns and drum sections. Separate VU meters on the audio channels, high, medium and low, would indicate to the booth operator the proper mixing. The Master Control, located in another part of the building, would receive the signal and feed it to the transmitter, which was located about 20 miles from the studio. The audio from the Master Control had to [be] fed with enough intensity to keep the transmitter modulating the full 100 percent in accordance with the Federal Radio Commission.

From KOA I went with KMA, Shenandoah, Iowa. My work at KMA included the construction of a 5,000-watt transmitter. The transmitter from the RCA [Radio Corporation of America] was considered at that time, 1936, to be one of the finest radio-constructed broadcasting transmitters ever built. All the latest engineering perfections were included. Robert Kauffman and Robert English were the two Radio Engineers who supervised the construction. The transmitter building was located outside of the city about five miles. Earl E. May was the owner and his main object was to advertise

his General Merchandise store. Earl Kay was quite a showman and he had quite a reputation of being one of the best radio personalities on the air. The Sons of the Pioneers were one of the big features and many times I have put them on the air monitoring at the studio control booth. Cy Rapp was the Chief Radio Engineer and a very interesting person. When the transmitter and studio construction was completed my contract with KKA was terminated.

I was informed that KIUL at Garden City, Kansas needed a combination Radio operator. Many stations in the 30's subscribed with the Trans Radio Press. WCC was one of the transmitters that would send press copy at various times during the day and a combination operator was a person who could copy the International Morse code as well as licensed to operate the transmitter. My work at KIUL was very interesting. KIUL was a small 500-watt station but had good coverage throughout the state. Every few hours the Trans Radio Press schedule would come up and while at the transmitter I would copy the latest press and a messenger from the downtown studio would pick up the copy for our news broadcast. During the heavyweight champion fight between Dempsey and Firpo, WCC covered the match and I was making good copy and the sports announcer was reading the copy over my shoulder while Clem Morgan at the studio would mix in [a] crowd yelling and clapping from a sound effects recording. The sports announcer was giving a blow-by-blow account as fast as I was copying. When we got through the phones started ringing and many of our listeners said that they did not know we were on a national chain. Some said that our fight reports were better than NBC. That made Mr. O'Conner, owner of the station, feel good.

I can well remember when the Hindenburg Zeppelin was coming and getting ready to dock at Lakehurst, N.J. WCC was covering the news, and everything was going nicely when all at once WCC gave: FLASH the Hindenburg has exploded. From then on to the wee small hours of the morning we stayed on the air and gave our listening audience a vivid word picture of the tragedy. That was a terrible thing and when it was all over the announcer and myself were exhausted and extremely distressed and sorrowful. I will never forget the intense emotion that we both felt dispatching that tragic news.

While at KIUL I was promoted to Sales and Program Manager. This promotion gave me full opportunity to outline a sales promotional plan,

build and supervise program, sell "radio time," instruct salesman and announce as well as operate at the transmitter and copy Trans Radio Press - my hands were full, indeed. Some of the programs that I "built" and put on the air:

"Review of the News" — hour broadcast featuring factual accounts of important events that transpired the previous week.

"Sugar Music" — half-hour broadcast featuring Clyde McCoy and his trumpet.

"Western Melody" — half-hour broadcast featuring Clem Morgan and his Singing Guitar.

"Listen" — forty-five-minute broadcast featuring select readings and poems - speaking: myself and alternating with Clem Morgan.

[In] 1937 I got a Radiotelephone First Class license at Kansas City, Mo. The examining RI was William McDonnell. McDonnell was a very nice person, indeed. He made several station inspections when I was at KIUL. O'Conner sold his station to an organization that wanted to have a national chain of stations and of course they had their own Radio Engineering staff. I left KIUL about 1940 and went to Kansas City and tried to get a job with stations there, also tried KMOX at St Louis. All stations were adequately staffed so I concentrated on selling. I sold Electrolux vacuum cleaners, electric refrigerators, hospital supplies, radios - you name it. I traveled all over Texas, Missouri, Arkansas and Kansas. When in Dallas, Texas I went to the RI's office and met Mr. Abbott and Mr. McKinney. They told me that the FCC was organizing a National Defense Organization (NDO) and needed a lot of operators and engineers who could copy CW. Abbott took my application and in about two weeks I received a long telegram from Washington telling me to report to the FCC monitoring station at Grand Island, Nebraska.

I went to Grand Island as an Assistant Monitoring Officer. My wife and I had a little Ford roadster and made the trip with great anticipation. Mr. Ben Wolf was the Chief RI and he gave all of us a good deal of instructions of what the FCC had in mind. This was a little before World War 2 and we soon realized that we were chosen for monitoring the

frequencies for Nazi spy stations, copying intercepts, taking bearings, etc. While at Grand Island I struck up a good and lasting friendship with Eric Coburn who was an operator at WPA in Galveston, Texas. I still keep in touch with Eric via messages handled on the amateur bands. Also, I was more than surprised when I met in person W7AAT, Orvil Viers from Red Lodge, Montana, the person that I kept traffic schedules with when I was in Denver. We certainly had a lot to talk about, recalling the interesting times we had in handling traffic. At Grand Island I met a number of radio amateurs that I had talked to over the air but never had the pleasure of meeting them in person.

After about three months of intensive training I was detailed to report at the FCC office in Atlanta, Georgia. I sold the Ford, and my wife and I took the next train for Atlanta. There I met Mr. Abbott again and he instructed me to drive the Hudson car with equipment and proceed to St. Augustine, Florida. We arrived at St. Augustine in a couple of days and located the station that the FCC engineers had already set up for us. Two radio operators were already stationed in the city so in a short time we had the station ready to open our first case. I notified Washington that we were ready for work and in a short time "cases" to monitor came in and we had round the clock monitoring schedules. For about a week when I would pick up the mail at the Mayor's office, I noticed that the Mayor did not say much. He would look at me with a fishy stare. One day he said in a slow drawl, "You're a Damn Yankee, arn't you?" I replied, "Sure, and you're a Southern Cracker, arn't you?" He roared with laughter and ever after that we were the best of friends.

We located a great many Nazi stations here on the east coast who were contacting German Subs in the Atlantic. We ran down several Doctors in Long Island who were using diathermy machines for espionage communications. They would not send Morse code on the machines but would leave the machine on for one second then again two seconds, four seconds, etc. We found that they were signaling to other spy locations. We would run into nets of several Nazi spy stations located all over the world. Our Boss in Washington, George Sterling, was the main force behind the FCC RID (Radio Intelligence Division). I have attended a number of annual RID banquets and have met Sterling several times, talking over the exciting days of the RID. The RID was truly labeled "The Ears of Uncle Sam." Little did the Nazis realize that the FCC had monitoring stations scattered all over the world. Frank Kratokvil was the Chief at the primary RID unit at

Marietta, Ga. Our unit at St. Augustine would report to the primary unit at regular intervals. Banks Duncan was assigned to the St. Augustine station as a Monitoring Officer. Duncan arrived about two months after I and the radio operators had placed the unit under way. Frank was a very efficient MO, and we had a very enjoyable association.

After being at the St. Augustine unit for about eight or nine months, I was transferred to the secondary unit at Pensacola, Florida. This unit had about the same radio gear, the famous SX 28 and associated equipment. However, at this unit we had a DF (Direction Finder) utilizing the Adcock system. The Adcock was mounted quite a distance from the station in a field that was not surrounded by metal objects. Due to the extreme sensitivity of the Adcock DF any large metal structures would cause erroneous bearings. There was a train track about ½ mile from the DF and I can well remember if we were taking a bearing on a station and a train came down the track our bearings would vary several degrees and we would have to wait until the train passed before we could get an accurate fix. [For] all stations that we had to monitor we not only had to include the text of transmission but also the bearings. [For] many stations that we monitored we would find their bearings from day to day would vary several degrees, which indicated that the station was mobile. FCC had a number of DF stations scattered all over the world and a "cocks hat" [triangle of position on a map, usually known as a "cocked hat." | could easily be determined. Ralph DeCourcey was the Monitoring Officer at the Pensacola unit and a very good one, indeed.

I can well remember a case that we had on a station signing JUG. JUG would transmit every night at 0100 GMT [Greenwich Mean Time] and many times would send five letter cypher groups. All the bearings pointed to the West coast. This case was pending for several months. Eventually the case was closed and no longer was JUG on the air. We who monitored the case had no idea who and what the station was, it was none of our business. However, in about a week we read an article in the local paper that the FBI had made a raid on several Jap fishing boat at the west coast vicinity taking soundings. We fellows guessed that one of the fishing boats had a transmitter aboard and was sending the depth soundings back to Japan.

Many times we would be instructed to take our unit car, which was a Hudson Sedan that could not be told from an ordinary vehicle because no Government tags were displayed, and all the radio equipment was

secluded, to investigate suspicious transmissions. We found several Nazi transmitters who were communicating with subs in the Atlantic. Those were exciting days. The FCC RID appointment was the most interesting job I have ever had. I enjoyed every minute of it.

World War 2 was well under way and our monitoring work was increasing tremendously. New cases were coming from Washington and our workload was gigantic. The round the clock monitoring was strenuous. Each one of us took our task very seriously because we realized that every *dit* and *dah* must be copied correctly because the information [transmitted] could mean defeat or victory. I have the highest respect for all personnel that were in the RID because I know the hours of concentrated effort and nerveracking procedures that had to be done so as to obtain the least bit of information. Very few people knew what a strenuous, nerve-racking, compelling and dangerous task it is to gather Intelligence. Some of our RID men lost their lives while investigating espionage detail.

I can well recall the frightful day of December 7, 1941 when the Japs bombed Pearl Harbor. DeCourcey called all personnel to report at once to the monitoring unit for detailed and extremely important instructions. The workload increased ten-fold and each man had plenty to do. We intensified our monitoring of the frequencies and picked up a great number of Jap stations that were not heard before. Close and constant contact was kept with Washington. All traffic, of course, to the Washington Office was in cypher coded messages. Our cypher codes were changed at regular intervals so that the translation by the enemy would be at the minimum. At our Washington Office we had the best cryptographer in the country, Albert McIntoch [sic]. We copied reams of cypher traffic from Jap and Nazi stations. As stated before, we took bearings on each station that we monitored, and our fixes indicated that the enemy stations were scattered over Europe and South America. Of course, these fixes, when the "cocks hat" was determined, meant a great deal to our armed forces so that they could intensify bombing of the enemy territory. There is no question about it, the FCC RID was one of the most effective, important and beneficial divisions in our Intelligence community. The RID was first formed and instigated by George Sterling with the full approval of President Roosevelt. Hats off to Sterling, he is truly a great radio pioneer.

With two fronts raging, the U.S. declared war with Japan December 8th and with Germany December 11, 1941. The FCC units

throughout the world with an employment of 528 were working at top efficiency. Nets of Nazi stations consisting of ten to fifteen were monitored and during the cypher traffic numbers of five to six digits were sent which, no doubt, was the number that the Nazis executed in their devastating death chambers.

Many of the Jap stations sent their messages in Kana code. I can well remember when Jimmy Doolittle made his famous bombing raid "30 seconds over Tokyo" with a fleet of 16 B25's that were dispatched from the aircraft carrier Hornet that was about 650 miles east of the Jap coast, April 18th, 1942. Those were fearful and exciting days. Every one of us in the RID realized the extreme importance of our mission.

During the year of 1944 I was transferred to Washington and my first station was at Falls Church, Va. I had the pleasure of meeting Abraham Checkoway, Hyman Wallins, Hilary Hayes and many others who for the moment I cannot remember their names.

The workload at the Falls Church unit was heavy and very active. The radio car was on constant vigilance investigating suspicious transmissions. A signal was picked up at our West Coast unit and the bearings pointed directly to Washington. Several of our units in Texas, Washington state together with the west coast bearings established, beyond a doubt that the transmitter was in D.C. The signal frequency was up in the 15 MC [MHz] range, and due to ionospheric skip the signal was skipping over our units here in Washington. When the Washington Office directed the units to take their mobile cars and investigate the city was covered thoroughly. The transmitter was located in the German Embassy sending vital ship movements to Germany. The FBI was notified and soon arrested the radio operator and all concerned with the espionage operations.

After about six months at Falls Church I was instructed to report to the Silver Hill unit, Shinda. David Cooper was the Monitoring Officer in charge, and he deserves a lot of credit because he had Shinda, the codename for the Silver Hill unit, running at top efficiency. At this unit the monitoring detail was somewhat different. Our main task was to monitor for unauthorized A3 [AM] stations. We tuned in radiotelephone stations from all over the world and fed the transmissions to our monitors at a K Street location. We had monitors who could interpret any language, German, Dutch, Spanish, Greek, etc. Not only were we in a shooting war but also we

were in a psychological war. The enemies blasted devastating propaganda around the clock and our job was to tune in each broadcast and feed it to the monitoring staff. At Shinda we had about fifty SX-28's and many times each receiver was tuned on some broadcast station. This unit at Silver Hill was in the FCC category called FBIS (Foreign Broadcast Intelligence Service). We copied and monitored Al [Morse code] stations but our main duties were to monitor A3 [AM] transmitters.

I can well remember when one of the operators picked up a station that came on the air with heavy AC modulation. After about fifteen minutes words to this effect were spoken, "Hello everybody. This is Joe and Bill just a couple of young farmers here in good ole Iowa. We got enough equipment to rig up a transmitter so that we could tell you that President Roosevelt is leading your boys to slaughter. We can never whip Germany. The Nazis are too strong, etc., etc., etc., "The case on this station was held open for the duration of the war and every word, of course, was recorded. Bearings were taken and the "cocks hat" was found to be at Hitler's headquarters. We picked up numerous clandestine stations, White Eagle, Red Feather, White Feather, etc.; Axis Sally from Germany, Tokyo Rose from Japan, Ezra Pound from Italy, Lord Haw Haw and Best-the-English traitors were all recorded and transcribed.

While at Shinda, I had the opportunity to associate with many interesting and hard-working personalities - Francis King, John Elrod, Norval Pagenhart, Ray O'Neil, Ray Sterle, Tom Ware, Jim Wedewer, Frank Green, Dale Taylor, Clem KcGee, Vernon Ray, Bud Sloan, Ed Yokley, Bill Klima, Merle Ballou, Bill Toder and many others who for the moment I cannot remember their names.

Shinda was one of the main training units for new recruits who were to be assigned to other FBIS stations. Therefore, the turnover was rapid. However, the above named were the regular employees for the Silver Hill unit.

Jim Foxworthy was one of our best operators at Shinda. He was the fellow who picked up the station that passed off as the "young farmers in good ole Iowa." James Moffett was another hard working and interesting person assigned to Shinda. Jim was transferred and assigned to be one of the Radio Inspectors at Baltimore. Shinda was a busy as a beehive. All international short wave broadcasting stations had several transmitters that

were beamed to different parts of the world. For example, Berlin had a transmitter beamed to North America, another in Spanish to Latin America, another in Turkish beamed to Turkey, etc. Every one of these transmitters were monitored and recorded by our FBIS units and the text of the various broadcasts were analyzed with extreme precision resulting with Intelligence that was vital to our armed forces. The combination of the FCC RID and FBIS provided the Navy, Air Force and Infantry with information that resulted in complete victory over the Axis and Japanese.

During War 2 I recorded a great number of news dispatches and historical events that transpired. The famous dispatch "Normandy Beachhead" was recorded; also, the famous dispatch from Douglas MacArthur when he was presiding on the USS Missouri for the signing of the peace treaty with Japan at Tokyo Bay. I have about 300 historical records on 12" discs and each record carries my trade mark, Sound History.

I can well remember about two weeks before Berlin fell, May 2, 1945, all German transmitters were silent. At Shinda we had our SX28's tuned to the various Nazi frequencies. Merle Ballou and I were on the evening watch, 4 to 12 midnight. The receivers were checked regular to be certain they remained on the correct frequency. At 8:45 PM, two days before Berlin fell, the receiver standing by on the 11 meg [MHz] Berlin frequency showed maximum S-meter deflection, which indicated that Berlin was on the air. Immediately Ballou contacted K Street and told them to monitor line one because the German transmitter was on the air. At 9 PM the usual Berlin fanfare was given and then the announcer came on with words to this effect, I believe it was Axis Sally, "Hello North America, this is Radio Berlin. We are back on the air after repairing some trouble and will continue as usual the regular North American broadcast. Nazi Germany is stronger than ever and we will win the war. The Americans and Russians are cornered and will soon surrender, etc., etc., etc., etc., etc. This was the last broadcast from Nazi Germany.

The wind up of War 2 was at hand. Germany was cut of the picture and Japan was on the run. Our efforts at Shinda were concentrated on Japan transmitters. Round the clock vigilance was intense. Our west coast units, of course, had better reception from Japan. However, we at Shinda had our hands full locating and monitoring clandestine stations. Our Hellshriber [radio teletype] circuit to and from Puerto Rico was in constant use.

The complete surrender of Japan was inevitable. The Supreme Commander of the Pacific, General Douglas McArthur, was pounding Japan with increasing force. April 18, 1945 our Nation was engulfed in great sorrow. One of the greatest Presidents that America ever had, Franklin Roosevelt, died 83 days after he had been unanimously elected for his fourth term. Harry S. Truman immediately took office. President Truman fully realized the heavy burden that was placed upon his shoulders. He soon made plans to put an immediate end to the violent war that had caused so much sorrow and distraction throughout the world. August 6, 1945 the atom bomb was dropped on Hiroshima and August 9th another atom bomb fell on Nagasaki. This brought Japan quickly to the peace table. On August 10th Japan opened peace terms, and on the 14th humbly accepted the Allies terms. September 2nd in Tokyo Bay on board the USS Missouri with General MacArthur presiding, Japan signed the terms of peace. Japan and Nazi Germany now fully realized that they did arouse a "sleeping giant." Little did the enemy realize the intensity, determination and integrity of the U.S. and Ally armed forces.

At the conclusion of War 2, of course, the activities of the FCC RID and FBIS were not as intense. However, world radiotelephone and Al [code] transmitters are still being monitored. There is always rebellion and discord throughout the world, and it is very important that Uncle Sam keeps his ears open.

It was realized that the efficient and very important worldwide Intelligence gathering that the RID and the FBIS obtained MUST NOT BE ABOLISHED. Therefore, President Truman made possible the formation of the CIA. RID and FBIS personnel were automatically assigned to be under the jurisdiction of the CIA.

A short time after the conclusion of War 2 the radio amateurs and many commercial stations were permitted to resume transmissions. Whenever there is a war national emergency, radio amateurs and many commercial stations must cease to transmit not because of suspicion but to clear the frequencies so that more efficient work can be done monitoring for clandestine transmitters.

The duties at the CIA were similar to the RID and FBIS. However, a new worldwide picture of rebellion was beginning to unfold. General Douglas MacArthur predicated that Communist North Korea would endeavor to overthrow the Republic Government of South Korea. Tension was increasing and our Intelligence confirmed General MacArthur. June 25, 1950 Communist North Korea invaded South Korea. June 26th President Truman ordered U.S. air and naval forces to help South Korea. June 30th ground troops aided South Korea and July 9th General MacArthur was appointed by President Truman to be the Supreme Commander. The Korean War lasted for 37 months and proved to be one of the bloodiest. On July 27, 1953 a Truce Agreement was signed and the fighting ended. Our Intelligence gathering pointed to the fact that Communists in S. E. Asia were threatening South Vietnam and another battle was soon going to rage.

In my opinion General MacArthur should have been permitted to continue his battle and whip the North Korean Communists soundly. He said to this effect, "Our forces are now in a position to run the Communists in the ocean. If you do not let me totally defeat the Communists now we will have to do it later." He was absolutely right because the bloody Vietnam War soon came into focus.

There is no question about it, General Douglas MacArthur was one of the greatest if not the greatest General that America has ever had. His patriotism was unexcelled. To defend the United States against aggression was his greatest desire. He had his enemies and people who disliked him, of course, all great personalities who accomplish great things create disfavor among some. General Marshall called him "our most brilliant General." To Churchill he was "the glorious commander." He was labeled by many as "the greatest leader, the greatest commander and the greatest hero in American history."

For our monitoring staff a new building was built located several miles from any commercial and residential establishments that would cause severe "manmade" interference. In this building everything was centrally located which made it possible to carry on our duties more effectively. We had several rhombic antennas pointing to all parts of the world and with our high gain and sensitive receivers, signals from all over the world could be received with good fidelity. Truly Uncle Sam had his ears opened.

It is very important that America has an agency such as the CIA. Mistakes and miscalculations can be made, of course, in gathering Intelligence but the overall results are commendable. Like the old saying, "A

wise man advantages by his mistakes but a fool never does." Having been in Intelligence operations for so many years I fully realize the importance of such operations and I am reluctant to criticize our President when he has to make momentous decisions because I know that he and a selected staff only have access to a word picture of worldwide conditions that only they should know. Such information should not be presented to the general public because they could not understand it in the first place but paramount the enemy is lurking ready to assimilate [it].

December 1950 I organized the Trans Continental Relay Net (TCRN). Only proficient CW [Morse code] operators who could copy at least 30 wpm using the typewriter were included as members. W2B0, W3CUL, W6KYV, W7CCL, W9JUJ, W6MEW, W50SZ, W0KA, W4WBK, W4LM, KL7ATO/9, W3WV, W3PZW, W6BAM, W4UWE, KG6FAA, W4PL, W4EMC, W9NUJ, W9NQW, W4ERP, W0JAD, KL7AFC, W4TR, W5BRS, W9KRH, W8DNU and W2OE were some of our top-notch CW operators. With such a group of proficient operators it did not take long to clear traffic. During some net sessions we would clear 100 to 150 messages. I had made arrangements with the Armed Service Hospitality Committee here in Washington to relay traffic to our armed forces. About a week before the holidays, Christmas, Valentine's Day, etc., they would put an announcement in the papers stating the fact that "Hamgrams" would be sent free of charge via amateur radio. Messages poured in and many times I would have 50 to 100 messages per day to clear. With operators who could copy CW 30 wpm, it was no bind at all. Traffic went like "water down a rat hole."

W6KTV, KG6FAA and W6BAM were our main outlets for APO [Army Post Office] SF [San Francisco] traffic. I made schedules with K4AF and K4USA at the Pentagon to clear my APO NY [New York] traffic. During those days the Pentagon stations, K4AF and K4USA, had some crackerjack operators who could copy CW at a rapid clip. Red Callihan was the best and you could flip the bug at him 40 wpm and he would copy letter perfect. TCRN is strictly a CW net. CW is the only mode to use when handling heavy traffic - no question about it. Col. Richard Dugan, USAF Commanding Officer sent me a message originating from Guam KG6FAA, stating that during the month of December 1954 their traffic total was 12,156 and appreciated the wonderful service that the TCRN was performing.

TCRN used two main frequencies, 7042 and 3521 KC [KHz]. The times for the 7042 net was 0215, 0615 and 1600 GMT and the time for 3521 was 2300 GMT. When band conditions were normal we could clear our APO SF traffic direct with W6KYV in LA and KG6FAA at Guam. NCS duties were given to various members. I can well remember I had 30 messages bound for APO SF and being unable to QNI [join the net] at 0215 Z [GMT] on TCRN 1 7042 KC [KHz] I gave the traffic to W2BO on the 1600 net so that he could QNI at 0215 and pass the traffic to W6KYV. Also, I would give Mae, W3CUL, a batch of traffic and she would pass it directly to KG6FAA. TCRN traffic moved smoothly with no bind. I believe that I can say that our net TCRN was one of the most efficient nets. The answer is obvious, all of our operators were top-notch CW operators - we had no slow pokes.

TCRN gained a great deal of attention during emergency stress. Our net was instrumental in providing vital assistance to the Red Cross and the Weather Bureau during floods and hurricanes. Many times we gave the WX [weather] Bureau information regarding the position and devastation of hurricanes when their communications were disrupted. I can well recall one night when hurricane Carol in 1956 blew out the Bureau's communications and Mr. Matson, the Chief at the Washington office, called me at 3 AM stating that Carol was pounding at Cape Hatteras and that they had lost all communications in that area and requested that our net endeavor to supply directions, winds and flooding. TCRN was active and I soon was able to get one of our stations in Morehead City who was a retired weatherman and was able to give a full report in terms that Mr. Matson could analyze. Whenever hurricanes start blowing and become a threat to the Mainland TCRN goes on full alert, continual activity. Effort is made to have as many stations in the area where the hurricane may strike to QNI [join the net]. TCRN is not only a traffic net but also an emergency net. TCRN was very active during the Alaskan earthquake, the Managua earthquake, the Guatemala quake and the recent Johnstown flood. WTTG, Channel Five, came out to my station and made TV interviews during emergency operations. TCRN has received many Public Service Awards and many commendations.[†]

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[†] September 29, 1951 at 6:38·AM a phenomenal event occurred at the Bargers' household. One of the most handsomest and healthiest baby boys was born. Jane and I were two of the most happiest parents. We both thanked God for sending us such a blessed event. There was nothing left for me to do but to notify all of the TCRN members about the arrival of Conan Wyatt Bruce Barger. Many, many messages were received giving congratulations to the "Young Engineer, and the Junior Operator at W3CV." These messages are recorded in his Baby Book so that he will know that he is a well-known person. From his babyhood to his formative years he

On February 28, 1957 a very momentous event took place. Mae Burke, W3CUL, my candidate, won the General Electric Edison Award. FCC Commissioner Mr. Hyde said that Mae won the Award unanimously; no other contestant came close to her qualifications. Under Secretary of State Herbert Hoover Jr., who was one of the judges, said, "Gentlemen, there is no question about it, Mae Burke W3CUL wins the Award." There were close to two hundred present at the banquet held at the Mayflower Hotel. The speaking agenda included Rear Admiral Henry C. Burton W4IH, Edward Webster FCC Commissioner, John Lang President of the General Electric, Under Secretary of State Herbert Hoover Jr. W6ZW/K6EM while Chester Lang of GE was MC. I gave a speech outlining the excellent and unexcelled Public Service that this lady is preforming even to this day. Al Burke W3VR her husband, a grand fellow indeed, deserves a lot of credit because he keeps the radio gear perking at top efficiency. Hardly a month goes by that she doesn't lead all others in the BPL [Brass Pounders' League]. Mae averages three or four thousand messages per month. Her assistance under emergency stress is unexcelled. She is an excellent CW operator and can copy at rapid speeds.

W3CUL was one of the first members of the TCRN. Her efficiency in handling traffic impressed me very much. Therefore, there was nothing left for me to do but to see to it that Mae Burke win the Edison Award. I wrote letters to all the TCRN representatives stating my plans and requested that they send letters to the General Electric commending Mae for her outstanding Public Service. Letters came in from all over the country and even from Guam and Japan. Members were enthusiastic and wanted very much to see that such a deserving lady win the Award. When Steve McCullum, Secretary of the Edison Award Committee, phoned me and said that my contestant had won, I was thrilled beyond words. Mae Burke was

was fascinated whenever he would hear CW signals. Many times, while I was on the net hand ling traffic, Bruce would come down to the radio room put on a pair of headfones and listen. When the stations would come back to me I would say, "there is Dave W6KYV, Mac W2BO, Mae W3CUL, Bill KG6FAA, Joe W0KA, Peg W9JUJ, etc." His interest was keen and when he was seven years old he knew the code and could make fair copy at 5 wpm. Soon, I thought, he would be ready for his license. However, when he started to Grade School and on to High School he got interested in chemistry. I helped him build a chemistry lab opposite from my radio room and Bruce collected a lot of precision equipment. I gave him an oscilloscope and he would spend hours analyzing lissajous figures [of harmonic relations]. Bruce is a very intelligent boy and I will say, of course I am a proud Dad, that he will go a long way in the scientific world. Maybe he will again get interested in electronics and radio so that he can carry on when this old goat has to make the trip to the Big Farm.

the first woman to win the Edison Award - that' in itself is momentous. The Voice of America transmitters broadcasted the entire ceremony throughout the world. Letters of congratulations were sent to Mae from all parts of the world. Mae vas interviewed by various TV personalities such as Arthur Godfrey. I am very grateful that Mae Burke W3CUL won the Edison Award and [was] presented [with] a beautiful loving cup and a check for \$500. Hats off to Mae Burke, "she is the greatest," as Jackie Gleason would say.

In January 1960 I was appointed [ARRL] Emergency Coordinator and August 15th, Route Manager for the [ARRL] MDD Section (Md., Del. and D.C.) by Tom Hedges W3BKE who was the ARRL SCM [Section Manager]. On December 11, 1961 Andrew Abraham W3JYZ appointed me Section Emergency Coordinator. I enjoyed this emergency work very much. I stressed CW operations highly and all of our AREC [Amateur Radio Emergency Corps] members were fair to good CW operators. Several simulated emergency tests were made - floods, earthquakes, explosions and fires. Many of the TCRN members would QNI and give excellent service. We would get the Red Cross, Coast Guard and the Weather Bureau involved. I can well remember when we were on a drill and had an earthquake as the disaster. My emergency field station was at the Harris farm at Clinton and the Onan [gasoline] Generator was purring like a kitten. A message was sent to one of our mobile AREC operators to have the Coast Guard station K4CG to be activated. In about five minutes K4CG reported into the emergency net and I gave him a message to this effect, "severe earthquake has occurred in S.E. Washington area. This location at Clinton only safe place in area. 200 survivors here. Some need immediate hospital attention. Dispatch doctors, nurses, gasoline for generators, food, water and police protection to prevent looting. This is a simulated emergency message." The CG operator said he would report back into net in about five minutes. An answer came back from the Coast Guard Commandant Officer, "dispatching two helicopters with supplies requested should arrive your location 0300 Z. Keep lights burning. This is a simulated emergency test message." The following day an airplane with Coast Guard insignia flew over and as he passed he wiggled his wings. We got a big kick out of that. My test message included the latitude and longitude of our emergency QTH [radio location]. Bill Bennett W3BMK was one of our best emergency operators. Bennett had an old WMA [War Materials Act] bus that he had converted to a mobile emergency station with all required equipment, receivers, transmitters, teletype and emergency motor generator.

Bill Bennett is one of my best friends and a mighty efficient emergency operator, indeed.

One day I had a telephone call and the person calling said, "Is this Conan Barger?" Then he said, "Do you know who this is?" That had me puzzled. I could not imagine who it was until he said, "Remember that fellow who lived in Parkland section in Des Moines near your Dad's college, University of Commerce, and you used to drive that Ford roadster over to pick me up and take me to your radio club?" Then I remembered, it was Bob Willits. Bob had moved to the East Coast and his call was W1PN. Bob was in the Merchant Marine and had done a lot of convoy duty during the War. Many times his convoy was in dangerous waters with Jap subs all around. Bob's Uncle was with the Bendix Corp. as a contact man to supply he U.S. with the latest electronic gear. I was invited down to the Willard Hotel to meet Bob and his Uncle. We had a wonderful time recounting the old times when we were in Des Moines during the 20's. When I told them that I made recordings of several war dispatches, Roosevelt's speeches, Truman's speeches, etc. Bob's uncle wanted me to make him a record of various news dispatches, Roosevelt, Truman and the signing of the Jap peace treaty on USS *Missouri*. I mailed the record to his home in Lakeview, Ohio. Several months later we three met again and I asked him how he liked the recording. "Excellent," he said. I asked him what he intended to do with the record other than play it back. He said that he has dug a large pit and lined it with waterproof material with Navy specifications and in the vault he is putting various items and when he gets the vault full he would seal it for posterity. My recording "Victory in The Pacific" is among the selected items that this person will give to the distant future. Also, I want to mention that when President Roosevelt died I sent Mrs. Roosevelt a recording of President Roosevelt's inaugural address. Mrs. Roosevelt wrote me a letter thanking very much and said that the record is on display in the Roosevelt Museum at Hyde Park.

Time marches on and waits for no man. December 1, 1961 I retired from the CIA. I will never forget the wonderful times I had while with the agency. Meeting and associating with some of the nicest people I will ever know. Merle Ballou, John Elrod, Tom Ware, Ernest Puffenbarger, Ray O'Neil, Tom Atherstone, Bob Babe, Manny Bothelo, Art Cline, John Quinn, Paul Fowler, Clyde Gregory, Al Rivits, Al Greenlee, Francis King, George Hathaway, Hyman Wallin, etc., etc., etc.

Ninety-five per cent of the radio operators employed by the FCC RID, FBIS and the CIA are licensed radio amateurs. This is obvious because the best and most skilled technicians and communicators come from the ranks of the radio amateur. The majority of radio operators employed by the above-mentioned agencies could transcribe rapid CW at speeds ranging from 30 to 50 wpm in legible form. I have worked with many skilled CW operators who could copy with ease a signal transmitting 60 wpm. A skilled and proficient CW operator is able to transcribe rapid sent CW in legible form. An operator who can read rapid CW in his head from 50 to 60 wpm and unable to transcribe in legible form is only half-baked.

It was not too difficult for me to adjust to my retirement. However, during the first few weeks I would find myself getting ready to go on the day, evening or mid watch. The force of habit becomes ingrained pretty strongly after 40 years of constant work schedules.

The first few years of my retirement were spent around the house, repairing, painting, etc. A great deal of my time was spent in my radio shack building electronic gear, transmitters, audio oscillators, test equipment, etc.

In 1963 I started a business of my own, the Speakers Bureau. I solicited public speakers who could speak on various subjects. My job was to engage them to speak at clubs, conventions, etc. A few of my speakers were Dale Carnegie graduates. The Speakers Bureau met with fair success. However, the Bureau did not quite ring the bell. In 1965 I conceived the idea of making code tapes. At the surplus market I bought a couple of tape recorders, composed a tape that would start the beginner on the road to become a good CW operator. This tape was called Code Sound Language (CSL), NR1 and NR2, which started at 5 wpm and finished at 15 wpm. Several verbal training aids are announced throughout the recording. Then I composed a high-speed tape that started out at 20 wpm and finished at 60 wpm. NR3 and NR4 are all CW, no verbal training aids are given, except a few words are spoken at the start of the recording. All my recordings are made using the straight key. I used to train operators to copy rapid speed code using the Boehme, and when the operator would get up to around 35 wpm making perfect copy he had a difficult time to copy code sent with a vibroplex or straight key. His ears were used to the perfect sending of the Boehme machine. Therefore, I used only the straight key so that the person learning the code would be able to copy CW with versatility. To obtain the high speeds on my records I would re-record, for example, 20 wpm at 7 ½

ips [inches per second] to a recorder running at 3 ¾ ips, which produced CW at 40 wpm. My code tapes are copyrighted and carry my trademark, Sound History.

So as to get my tapes on the market I made several hamfests taking two tape recorders and a typewriter. I can well remember when at the Fort Belvoir hamfest the high-speed tape was running with fair volume and while I was talking to a lady who wanted to purchase a tape for her son, I could hear the fast tape going about 40 wpm and the typewriter was banging away. I looked around and saw a young boy copying with ease. I went over to the recorder and could see that he was making a perfect copy. When he finished, he said, "That is a good tape. I'll buy one." He said he was only 14 years old and that his Dad could copy 60 wpm. That kid was an expert. When I realized that my tapes were getting to be known I ran ads in the QST. If you will look in the QSTs in the late 60's you will find my ad under Sound History Recording. I sold hundreds of tapes and many of my high-speed tapes went to the signal corps in Vietnam. Even had a dealer in Paris France. Orders were received from all over the world. I believe that I am correct when I say that my code tapes were the pioneer in the field. To my knowledge no other magnetic tape was on the market.

I always had a yen to start a radio school. In 1965 I approached the supervisor at the YMCA in Washington and explained my plans. He was very much impressed. They gave me a room to set up my equipment, advertised and soon I had all the students needed for a full class. Many wanted to obtain an Amateur license, others a Commercial Radiotelephone while others were interested in securing a Commercial Radiotelegraph ticket. I have trained hundreds of operators and many who got their Commercial Radiotelegraph are now sailing the high seas. I coined the name for my school, Institute of Radio Communications. My youngest student while at the YMCA was Mrs. Sturgeon, 80 years young. She was determined to get her license and after a few months of intensive training she went down to the FCC and got her Amateur General license. A close friend of Mrs. Sturgeon came at my school and told me that before she passed away she became paralyzed and could not talk - she could hear alright but could not answer in vocal language. They got her a code oscillator and key and she could carry on a good conversation via Morse code. Remarkable! Mrs. Sturgeon was one of the nicest ladies I have ever known - a very pleasant and kind personality.

Making code tapes, teaching at my school and being president of the District Heights radio club that I organized in 1958 kept me busy as the old saying goes, "Two cows in fly time." ‡

I kept plugging away at my radio school but the daily trip to Washington from District Heights was a long haul, especially when traffic was heavy. So I tried to get a location closer to home. There was nothing suitable in District Heights at the time, so I took a room in the same building that my good friend, George Pasquale W3NJT, had his business Amateur Radio, Ltd. I have known George for years. We used to teach the Boy Scouts radio theory and code. George holds a First Class Radiotelegraph license and has sailed on many ships in the Atlantic and Pacific. Our renewed friendship was very pleasant, indeed.

For the past several years I have been writing for the *Bulletin*, a local Prince Georges newspaper. My column "Amateur Radio News" is published fairly regular. When I had spare time, I used to sell advertising and deliver bundles of papers to the *Bulletin* carriers. I enjoyed very much working for two nice people, Ben and Carol Schwartz. The association with the Schwartz family and the personnel at the newspaper was very enjoyable, indeed.

Since 1972 I have been teaching the Adult Educational classes, Radio, TV repair and Basic Electronics at the Crossland High School at Camp Springs. This gives me the opportunity to associate with many interesting people. The administrators of the Adult Educational program, Mr. Smith, Mr. Custis, Mrs. Mary Ourseler and Mr. Beavers, are very efficient and pleasing individuals.

In 1973 I was very fortunate to be able to find a suitable location for my school in the Citizens Bank Building in District Heights. This location is excellent being only five blocks from my home. The room is adequate. In the center of the room are two oak tables end to end making one

[‡] Great sorrow came to the Barger household when my wife passed away in 1968. When you lose someone that you love dearly it is hard to realize that you will see them no more. Bruce was seventeen and it hit him hard because he loved his mother very much. The financial burdens got so heavy, hospital bills, funeral expenses, etc. that I had to curtail my advertising schedules and resign being President of the District Heights Radio Club. What is one man's loss is another man's gain. Almost immediately the Pickering Company started to advertise in the *QST* selling magnetic code tapes.

long table approximately 12 feet. The legs of the tables are cut so that they will accommodate typewriters. There are eight positions on the table and each position has a hand key and headphone jack, four positions on each side of the table. The master control contains an audio oscillator and jack panel that I built, a [Hammerlund] 600 SP receiver and an RCA [military] CY-7l/URR RTTY [radioteletype] converter. Each position is terminated with a plug, which enables various positions to be connected to different circuits. For example, position 1 can be connected to position 4 while position 6 can be fed code from the tape recorder.

This is a very flexible arrangement. One side of the room contains a model 15 Teletype with perforator. Next to the model 15 is an old model 12 teletype that was used by the Western Union, which in a few years will be a collector's item. Filing cabinets and a table containing the school's transmitter, [a Heathkit] DX100, and [a National] NC200 receiver. Last year we organized a radio club here at the school called the Brass Pounders Amateur Radio Club. I put in an application for a club call and the FCC gave us WB3IVO. Next to the transmitter operating table is a Boehme keying head and driver. Also, there is a Wheatstone perforator to punch tape for the Boehme.

A few times each week, each Saturday and Sunday starting 2000 GMT on 7060 KCS [KHz] and each Tuesday and Saturday starting 0200 GMT on 3560 KCS [KHz] (speeds range from 20 to 50 wpm), we give code proficiency drills. The opposite side of the room contains a bulletin board and many pictures of some of the students who have attended my radio school. Several Public Service Awards and official documents are displayed. There is an "Honor Roll" containing photostatic copies of radio licenses that my students have obtained from the FCC. I am proud of my school because the Institute of Radio Communications has been approved by the Better Business Bureau.

The present roster, September 1978, of the Institute of Radio Communications includes:

Clifford Blye, William Foster, Rick Quillín, Kirby Cave, Mr. and Mrs. Thompson, Lafayette Sessoms, Billy White, John Robinson, Joe Yelverton, Joe Shafer, Howard Isreal, Kay Alston, Thomas Morris, Erin Malhon, Willie Worth, Al Williams, Bill Harley, Rusty Wins, Fred Schnitman, Ken King, and William Kessinger.

I want to mention here a few more people that I had the pleasure of associating with when employed by the FCC RID, FBIS and the CIA. Ray Darby, Dave Ablowich, A. L. Budlong, Miss Downey, Mr. and Mrs. Kruger, Miss Haws, John Gallihugh, Tom Hedges, George Jensen, Mark Kryston, Ray McGillis, Walt McGreger, Harry Thorpe, Allen Wheelock, James Veatch, William Thompson, James Sutherland, Frank Stubbs, Dorothy Stauffter, Gus Hidelman, Dora Labarr, Tex Debardeleben, Tom Atherstone, William Atkinson, Col. White, Ed Ford, Amory Penniwell and many others.

Allen Dulles was the director of the CIA when I was employed, and I had the pleasure of meeting him a couple of times. Dulles was the best director that the CIA has ever had. Some of the above named have gone to the BIG FARM. As the old saying goes, "All radio operators will meet under the big apple tree on the east bank of river Jordan." I'll be there. ##

Archivist's Note by Bart Lee, K6VK, CHRS Fellow, AWA Fellow

Transmittal letter to the Society of Wireless Pioneers:



INSTITUTE OF RADIO COMMUNICATIONS

6108 OLD SILVER HILL ROAD, DIST HGTS, MD 20028
CITIZENS BANK BLDG.,
ROOM 211
568 3185

JANUARY 9, 1979

Society of Wireless Pioneers Box 530 Santa Rosa, Calif 95402

Gentlemen:

750 79-8

Enclosed is my dues for 1979. Indeed it is an honor and a privilege to be a member of souch a wonderful organization.

Also included is a revised and corrected wireless and radio history of yours truly. Several misspelled words have been corrected together with the better running text. This edition will replace the history that I sent you with my application.

Also is an announcement regarding my school together with the schedules of the code proficiency drills.

My home station has three transmitters. For 80 mtrs is a home brew rig using two 1625 tubes that pumps out about 100 watts; for forty is another home brew job utalizing one 813 that pumps out about 250 watts; for twenty is a Johnson Viking that pumps 100 watts. Each rig has its own ant so it is no sweat for me to QSY to another band. For receivers a super pro BC779 and the famous SX28 - two splendid receivers. I but t my 813 rig in 1956 and it has been perking very good.

Best of regards to all of you and the best of luck during the new year. God Bless.

Sincerely,

Conan W. B. Barger W3CVE

Enclosures associated with the letter:

INSTITUTE OF RADIO COMMUNICATIONS

\$108 OLD SILVER HILL ROAD - DIST HGTS, MD.
CITIZENS BANK BLDG - ROOM 211 TEL 568-3185

IRC TEACHES THE FULL RADIO COURSE CONSISTING OF THE INTERNATIONAL

MORSE CODE - THEORY - RADAR AND TELETYPE TO PREPARE THE STUDENT

FOR ANY GRADE OF AMATEUR OR COMMERCIAL FCC LICENSE. THE COURSE

COVERS 40 LESSONS 3 HOURS EACH . DAY AND EVENING CLASSES CAN BE

ARRANGED. IF YOU WANT TO LEARN ABOUT RADIO COMMUNICATIONS THIS IS

THE SCHOOL FOR YOU.

CNC 1 W3CVE DIST HCTS, MD. TO ALL RADIO AMATEURS
THE BRASS POUNDERS AMATEUR RADIO CLUB, WE3IVO, INVITES YOU TO
PARTICIPATE IN THE CODE PROFICIENCY DRILLS EACH SATURDAY AND SUNDAY
STARTING 2000 GMT ON 7050 KCS. EACH TUESDAY AND SATURDAY STARTING
0200 GMT ON 3560 KCS. SPEEDS RANGE FROM 20 TO 50 WPM. 73
W3CVE

These seem to be radio-teletype copy of Institute of Radio Communications over-the-air announcements of opportunities.

With respect to the Federal Communications Commission and its Radio Intelligence Division, its Chief George Sterling wrote an extensive history. See George E. Sterling, W1AE, *Spies Use Radio – The Radio Intelligence Division In WW II*, in 5 AWA Review (1990) at page 63. See also Bart Lee [K6VK], *Radio Spies: Episodes in the Ether Wars*, in 15 AWA Review (2002) at page 7.

With respect to CIA radio operations, amateur radio earned high praise. See, *e.g.*, David Atlee Phillips, THE NIGHT WATCH (1977) at page 228:

"CIA officers admire their communicators because they know CIA communications are, without question, the best in the world. *** The typical COMMO [Office of Communication] recruit comes into CIA in his twenties, not long after finishing his military commitment. He has been trained in radio while in the military. Frequently he is also a ham operator with valuable experience in working with low-powered circuits over long distances under difficult circumstances. This sort of background closely matches the needs of CIA. Indeed, most of COMMO's original leaders had been hams. It was a classic case of doing well what one enjoys doing. ¶ On numerous occasions I marveled at the skill and flexibility which marked the performance of CIA communicators."

To this day, Conan W.B. Barger's Morse code teaching audio recordings are admired on amateur radio Internet forums. See, *e.g.*, *K7QO's Code Course* by Chuck Adams, K7QO at: https://www.kkn.net/~k7qo/manual.pdf.

Barger copyrighted his "Code sound language" in 1964: A729711.

His amateur radio license expired in 2004.

[de K6VK, 13 III '21] ##