

YOUNGSTOWN STATE UNIVERSITY

ORAL HISTORY PROGRAM

World War II-Europe

Personal Experience

O.H. 1230

PAUL CROUSE

Interviewed

by

John Jamieson

on

July 14, 1989

PAUL CROUSE

Paul Crouse was born on August 8, 1919, in North Lima, Ohio. He grew up in North Lima and graduated from high school in 1937. He worked in a grocery store until he was drafted at the age of 22, in 1941.

Mr. Crouse was assigned to the Signal Corps and sent to Ft. Monmouth, New Jersey, for training. A shortage of rifles forced them to practice marching skills with broom sticks.

After training in codes and radio operation, he was sent to the European Theater as part of the U.S. Army Signal Corps. His unit was among the first to arrive in London, where he was assigned to a cryptography unit. Their mission was coding communications between military units in the U.S. and Europe. Messages which coordinated the invasions of North Africa and Normandy went through in codes, which had to be de-coded. Much of his work was secret in nature, meaning that he was unable to talk about many aspects of it until it was de-classified a few years ago.

Mr. Crouse recalled attacks in London by V-1 and V-2 bombs. One V-1 came close to destroying the building that they were in at the time. His whole war time assignment was in London. Messages concerning a "Manhattan Project" between England and the U.S. went through his office, and he recalls de-coding "heavy water," and thinking there was a mistake in the codes.

After the war, Mr. Crouse returned to Ohio and married his wife, Mildred. They have two sons. He worked as a salesman for the A.H. Ruehnle Company, until his retirement in 1981. He resides in North Lima, Ohio, where he enjoys hunting and fishing.

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INTERVIEWEE: PAUL CROUSE

INTERVIEWER: John Jamieson

SUBJECT: code machines, messages sent through the
U.S. Army Signal Corp in London, some combat,
return home

DATE: July 14, 1989

J: This is an interview with Paul Crouse for the Youngstown State University Oral History Program, on the World War II-Europe project, by John Jamieson, at 12053 Market Street, North Lima, Ohio, on July 14, at 10:35 a.m.

Mr. Crouse, would you give us a little background on where you grew up in your early years?

C: I'm a hometown boy. I never got out of North Lima. I was born in North Lima in 1919, just about two miles from where I live now.

J: Did you have brothers and sisters when you were growing up?

C: I've got one brother, an older brother.

J: What did your parents do?

C: My dad worked for the A & P Tea Company--that was a grocery store--for 27 years. Of course, I grew up in an A & P store, too, when I was growing up as a boy. When I got out of high school, I started working for the A & P.

J: When you graduated high school, it would have been. . . .

C: 1937.

J: 1937. Was your inclination to go into the service, then?

C: No. I was drafted for a year.

J: Prior to the war?

C: Yes, prior to the war, in 1941. That's when F.D.R. [President Roosevelt] said, "We'll never send your boys overseas."

J: You were 21 or 22 [years old] when you were drafted?

C: [I was] 22.

J: Do you remember the month?

C: Yes, [it was] October. I was in the service [from] October of 1941 until October of 1945.

J: You were in already when the war started?

C: Right.

J: Was there a feeling, prior to Pearl Harbor, that something was going to happen?

C: Yes. Everybody knew that we would end up in the war.

J: Do you remember where you were when Pearl Harbor started?

C: Yes. I was in New York City. I was on leave in New York City. Of course, they announced everything: "Everybody return to your base." I was stationed in Redbank, New Jersey, in Fort Monmouth. We had a weekend pass to New York City. They had sent trucks from the base to pick up all of the soldiers that were on leave in New York City. We piled in. I don't know how many [men] were in those trucks going back to Redbank.

J: When you first went in, what was your basic training in?

C: I started in Fort Monmouth, in the signal corp. When I was drafted in October, they sent us to Fort Hayes in Columbus. This is before they even had uniforms or a rifle to give us. We started basic training in our civilian clothes. Of course, the Army was not prepared at that time. We were at Fort Hayes for about a week

with nothing to do, waiting for an assignment. Finally, they came out and said, "If anybody can type 30 words a minute or better, step forward." I was anxious to get out of there, so I volunteered. I could type. I took typing in high school, and I kept it up. That's how I got in the signal corp, because I could type.

J: How long in basic [training] were you?

C: Basic was three months, I think. Anyway, I was sent to Fort Monmouth with four of my buddies who worked for Ohio Bell here in Youngstown. A couple of them, I went to school with. We stayed together in Fort Monmouth until we were separated. Then, we went to all parts of the world.

J: Fort Monmouth, was that a signal corp?

C: [It was a] signal corp base. That was the old, old base signal corp. This is where they still trained pigeons to carry messages. When I got there, they had quite a pigeon loft. That was one of their forms of communication.

J: What was a typical day like at Fort Monmouth?

C: Well, this was back in the early part of the war, before the war. Fort Monmouth was a base, as I said. It was all old brick buildings. When they started to build up, the soldiers who were drafted, the draftees, they just built these buildings all over this marsh land. It was a swamp where they built it. When I got there, there was just one or two of the barracks up. They had boards everywhere, where you could walk. This was in October. You had to stay on the boards, or you went up to your knees in mud.

J: Really?

C: Yes. This is where we had our basics.

J: So, you never went to basic in Columbus?

C: No.

J: [Were they] all signal corp guys at your basic training?

C: Yes. [They were] all signal corp guys. This is the old basic [we] learned: shoulder with rifle, which we didn't have. We had broom sticks at that time, but we went through the manual of arms and our basic training of marching.

- J: Do you remember anything that was particularly difficult for you there?
- C: No, not really. We went to typing school. Of course, I could type as fast or as good as anybody that was there. From there, we went into cryptography. That was what they put me into. I didn't volunteer for that. Of course, you know what cryptography is. It's codes and ciphers.
- J: Yes. I want to talk about that a little bit in detail. What do you remember? Did they eventually get you some rifles to practice with?
- C: No. I never had a rifle. When we went to target practice, they just threw a rifle at us and we shot it two or three times, and that was all. Of course, in the signal corp, our basic fire arm was a side arm, [a] Colt 45.
- J: So, you carried one of those?
- C: Yes. I had a Colt 45 issued to me when I got overseas.
- J: How long [were] you at Fort Monmouth?
- C: Three months. From Fort Monmouth, we went to a camp in New York, [and then left the states]. I can't think of the name of that camp, where the soldiers depart from. It's close to Fort Dix, but it wasn't Fort Dix. There's another one there. We were in there for one or two nights. Then, we sailed for parts unknown at that time. They didn't tell us where we were going.
- J: Do you have any idea what time of the year you left?
- C: That was in January. That would have been January of 1942, when we left the states.
- J: Do you remember anything about the trip, or what kind of ship it was?
- C: Yes. One of the worst times of my life during the war, I think, even with all I went through the next four years, was that trip across the Atlantic. This is when German U-Boats were sinking boats right outside of [the] New York Harbor. I think we were on the ocean somewhere around 31 or 34 days. I can't remember, but it was over 30 days.
- J: Was it a big ship?
- C: No. It was one of the last ships of the British Empire that got out of Singapore. They converted it into a troop ship without doing much to it. You could hardly

stand the odor down where we were supposed to sleep. Where they put us fellows, we were right by the screw, the propeller. Many nights, the propeller would come out of the water from the rough sea, and you would just hear it whine. It would really take off when it came out of the water. It would scare the dickens out of us.

The food was terrible. You couldn't eat hardly anything. [They were] British rations, you might say. It was just terrible. It's a wonder we really survived!

J: Do you remember losing weight on the trip?

C: Oh, yes. Somebody was making money on the boat. They were selling apples and oranges for about a dime a piece. This is really what you lived on for the whole length of the trip, until we got to Iceland.

The convoy stopped in Iceland for a couple days. Then, we did get a little better food there, while we were at Iceland. We were waiting for some more ships to come into this convoy. I think this is where the escorts parted. They went as far as Iceland, and then, they went back to the states. Then, we were picked up by real little boats. We had good escorts going across to Iceland, big wagons. When we left Iceland, we just had these little corvettes. You'd see them floating in and out of the convoy. They were Canadian Corvettes.

J: Did you see anybody get torpedoed on the trip?

C: No, but they dropped death charges almost constantly. You'd just hear them. When they dropped them, the whole boat would shake. They would be that close to us. We were being chased. We knew that our lives were in danger.

J: You were going to arrive in England in early 1942?

C: I got to Belfast, Ireland in 1942.

J: Did they immediately assign you?

C: When we got to Belfast, we spent one night in Belfast. The next morning, they put us on a boat. We crossed the Irish Sea into Scotland. We got to Scotland, Glasgow, I believe it was. They put us on a train; we took an overnight train. It was almost a 24 hour trip, I believe, from Scotland down to London.

J: All of this time, you really don't have too much of an idea where you're going to be and what your job will be?

C: We still didn't know--well, I guess at that time, we did know that we were going to London.

J: What unit were you assigned to there?

C: We had our own company. This was a company that went across on the boat, the 827th Signal Company.

One little story I should tell you before I forget it is: when we were in New York before we left, they had us loading our equipment onto a boat. We had teletypes and all kinds of office equipment, papers, pencils, code machines, and a couple of jeeps that were assigned to our company. At the last minute--we were going to go on the ship--they changed our plans. They put us on the Duchess of Athol. [That] was the name of this boat that we went across [on]. We had another name for it by the time we got there. Do you want me to tell you what it was? It's a bad name. (Laughter)

J: No, that's okay. The equipment that you used, I wanted to get a little bit of background on that. You said teletype and. . . .

C: Code machines.

J: Code machines?

C: Code machines, Sigaba code machines, they were called. I can tell you that, now.

J: Were they anything like the enigma machine that we read about?

C: They're all the same. They all work on a series of rotors. All the code machines were [on] the same principle. The rotors, they either had five rotors or three rotors. You can have as many as you want. Each rotor has got 25 letters on it, which is the alphabet. They're all wired the same. It all depends where you start your system. If you know where to start and set them up and you have the same equipment, you can break any code there is. This, of course, is what the English did when they would break the German codes. They had this big machine, [and] they could put any formula in these rotors any way they came up. Eventually, they could break the message. I had a little bit of that training when I got to London. That would drive you crazy. You would sit there with this message, and you would go through all of the possibilities to try and break it. I was glad to get out of that.

J: You were assigned to London. Whereabouts do you . . . do you remember where you went?

- C: The first place we stayed--Now remember, we were the first United States soldiers, the first Yankees in London, and we stayed in a British barracks, which was on James Street in St. James Park, which is just 100 yards from Buckingham Palace. Our first headquarters was the American Embassy in Grosvenor Square, which is about a half a mile from where our barracks were. Their food was terrible! We were on British rations, which were basically mutton potatoes and cabbage. That was your main meal everyday! (Laughter)
- J: While I remember, do you recall a difference--when you were first there, they probably were pretty friendly--towards the end, with all of the troops there?
- C: Yes, those Yankees. When we first got there, we were invited out to different homes. Remember, every night when we first got there, the Germans were still bombing. It wasn't a blitz, it was just nuisance raids. They just bombed to keep the people awake at night. We were invited out to different homes. Remember, there [were] only 60 of us who arrived there, the first Yankees in town. This was before they had any Red Cross Clubs. [There was] nothing for us to do. So, we were invited into the British counterpart, USO, the American Eagle Club. I made a recording at the American Eagle to send home to my parents, which was a money making affair, too. These people recorded your message, and then, they sold the record to your parents. (Laughter) We still have it.
- J: Was that on a phonograph?
- C: Yes. It was on a 78".
- J: Towards the end, when you--if you recall, with a million Americans a day, you probably weren't much of a novelty after that?
- C: No. Of course, when [we] got that many troops, everybody wanted to spend their five day pass in London. Everyone wanted to come to London, because you could get things in London that you couldn't get anywhere else. Everybody knew where the black market was. As soon as they got to London, they knew where they could get a bottle of scotch, or where they could get eggs and steak, or something like that. Word spread fast, if you had the money. These guys had the money to do it, because the American soldier was overpaid.
- J: I heard the quote: "Overpaid, oversexed, and over here."
- C: Yes.

- J: I thought that was cute. Your first assignment in London, there probably wasn't a whole lot to do earlier in the war?
- C: No. It was more or less just training. In our company, there were 60 of us, and all of us were corporals. When I got in the Army, I was a corporal the first week I was in Fort Monmouth, because they didn't have any cadre. The only reason I was appointed corporal, acting corporal--you were allowed to wear the stripes--[is because] I was over six foot tall and I had a good build. That was the way they picked them.

When we got over to London, we were appointed to corporal, and pretty soon, we were sergeants. We went right up the ladder. Out of the 60 of us original boys, 10 of them were master sergeants. These 10 came out of Washington, out of the main headquarters in Washington. They set up the standard operating procedure for the whole European theater. They followed that from there on. These 10 master sergeants soon were second lieutenants, and then, they went up the ladder. They were smart boys.

- J: The job that you eventually [were] going to be in was communications. How far did this communication range?

- C: London. Their call letters were J.B.J.B. At that time, you only had--outside of the Philippines, I guess they hadn't fallen yet under MacArthur's command--London, which was the main headquarters away from Washington. This is where everything happened from. Everything that took place from there on, started in our headquarters, in London, at the Embassy.

- J: How big was the place where you worked?

- C: The American Embassy is a mammoth place! Our offices, where we worked, was a building owned by Doug Fairbanks. It was his home in the west end of London, so it was pretty fancy.

- J: I bet.

- C: I remember the bathrooms, they were all glass, everywhere you looked, except for the ceiling. All the way around was glass, and you could see yourself in any part of the bathroom. (Laughter)

- J: Is that the place where you're going to stay for the entire time?

- C: No.

J: How long were you going to be there?

C: We were there for close to a year. The main headquarters in London was a big department store in Oxford Circus. If anybody knows anything about London, there [are] two big parts of London. The Mayfair section, which is the west end, and the Picadeli, which is downtown. We were in the Mayfair section, which was the [high] class part of London. This is where all the rich people lived. They still had a class system in London. This big department store was known as Selfridges. It would be like the May Company, the Horne Company, or something like that. It was a big building, for London. I think it was three or four floors high. It had two levels of basement. This was good for me because, later on during the war when we got hit by the V-2 rocket, almost a direct hit, I was two floors underground. That's the only reason why I'm sitting here today, because the concussion got into the elevator shaft. It went up instead of going down. Of course, we were really bombed that night. The electric and everything was gone. It was just dust! What would have happened if the ceiling had come down?

J: The V-2's came towards the end of the war?

C: That was the end of the war, yes.

J: Pretty effective weapon?

C: The V-1's, the buzz bombs, those are the ones that caused all of the problems.

J: Really?

C: Yes. I'll tell you more about that.

J: Anyway, Selfridge was this big department store. Of course, it was completely renovated. They made offices, and the signal corp, the communication end of it, was two floors under ground. For safety sake and for security sake, you didn't get down to that part of it without a pretty good check.

C: Tell me about the security that was there.

J: The military police guarded the entrances. You had to show your pass to go to the restroom. If you went somewhere to get a cup of coffee, you had to show your pass. To get into the code room, it was just like jail. There were bars all around the code room. It was very secret. You couldn't see in or see out. To get into that, you had to have your blue pass. That was a pass that you could get into the American Embassy with.

J: Was there ever any attempt made, or fear of an attempt?

C: No.

J: So, they kept it pretty secure?

C: Yes. We were all armed back there. We had Tommy guns, 45s, Thompson machine guns. Of course, we were all armed with our 45s. We didn't carry them all of the time, but we had them with us most of the time. When we went to work, we wore them.

J: The communication that [went] in and out of there, it originated in Washington?

C: Yes. Washington was the main headquarters. In other words, everything came from Marshall's office. He was the chief of staff. General Marshall ran the whole war, as far as that goes. These are before the days of Eisenhower. This is before the days of the African campaign.

J: How did the messages come in, on a radio?

C: We had a big radio room. When things really got going, we probably had close to 40 or 50 men working just in the radio room. This was a high speed radio.

J: Mores code?

C: No. Mores code was a thing of the past. We had much quicker things than that. We had use of Western Union's cable, which went across from New York to London. It was available to us for urgent messages and things that you wanted to make sure would get across without any problems in the atmosphere. The sun spots, especially, would cause a lot of radio problems.

J: Did you do any actual radio work, or just decoding?

C: No. I couldn't stand that radio work. I was in cryptography from the time I was at Fort Monmouth until the time I got out.

J: They would come in with a message from the radio room. Was it your job to decode, and that's all?

C: Yes. I started out, I was strictly a cryptographer. I could do anything for the eyes only. In other words, if a message was real top secret [and] the first line that you read said: "for the eyes of General so-in-so," then they had certain people there who decoded those.

- J: How much of a coordination was there between American direction and the British running that end of it?
- C: We had a British code machine in our code room. They didn't have one of ours. (Laughter) The reason for that--when you go back to Dunkirk, when England lost practically everything that they had, they left some code machines over there. They were outdated. They were still the first code machines that they used in World War I. They were very slow. They might run 10 words a minute, where ours were as fast as you could type. Every now and then, we would get a message in British code from somewhere in England. They wanted to get to our place in Washington. It would come through our office. We would usually decode it, put it in our code, and then send it to Washington.
- J: As the war started to gear up towards Normandy, towards the invasion plan--of course, there were other smaller invasions before that. What do you recall about the . . . ?
- C: Operation Torch was the African invasion. Eisenhower, of course, was in England at that time. He was the General of the ETIUSA, the European Theater, we called it. When the African invasion was gearing up, Eisenhower set up his initial headquarters at Gibraltar, the rock. Of course, he was drawing from our troops in North Ireland. They were going to leave North Ireland and go into Africa. He was drawing from our communication center headquarters, the European Theater. Out of our code group, we lost about 20 men. They were top men. I was an alternate to go, in case one of the guys got sick. Thank goodness, I didn't have to go.
- J: You weren't too keen on going to Gibraltar?
- C: No. I didn't want to go to that end of it. They took us out to the Eighth Air Force. These boys went down to fly in fortresses, B-17. They had to man the side guns, because [it] was a one-way trip on those air planes. They were leaving London and going into the air force [base] in Africa. These people were leaving London. The boys had to man the wing guns. But anyway, they took us out, and I was out there. They put us through the firing of guns. I went through that, but I didn't have to go to Africa.
- J: After the Africa Campaign, which was pretty successful, what came next?
- C: Overlord.
- J: Overlord?

C: Overlord, yes. Anything that pertained to the invasion. . . . In the message somewhere, it said: "This pertains to Overlord," or "This was torch," or "This was whatever." During the invasion, they had the beaches, which [were] gold and Juno. The big one was. . . .

J: Omaha?

C: Yes, Omaha was a big one.

J: That was the real hot one.

C: Yes.

J: The planning must have been over quite a long period of time.

C: Yes. I've got to tell you this. Every ship that left the states, the message was sent to us. They couldn't send anything in clear text. Everything had to be encoded. Everything that was on a boat, from a washer to a knife, a fork or a spoon, the quantity of them and what hole they were in, we had to decode this. Our code room kept getting bigger and bigger. We took the boys that could type real good out in the teletype section, and brought them in, because the code machine is the same keyboard as a typewriter. If you can run a typewriter, you can run a code machine. The only thing is, they had to be cleared. In other words, you just didn't take somebody out here and put him in the code room. I'll never forget, I had a letter from my folks. They wanted to know what I did, because the FBI was down in North Lima checking up on me.

J: Oh, really? They were asking questions? (Laughter)

C: [They were asking questions] about my character.

J: How much could you tell your folks?

C: Nothing.

J: What did you tell them.

C: I said, "I'm all right. I'm not in trouble." You couldn't tell them at all what you were doing. As a matter of fact, for a long time, they didn't even know that I was in London.

J: Really?

C: Yes.

J: Where did your letters come from?

C: APO, [the] Army Post Office.

J: Were they censored?

C: Yes, everything was censored.

J: Do you think they would have been more secure knowing that you were doing something like that?

C: No, because when you're in the army, anything can happen to you. I don't like to brag about it, but I probably saw more gunfire in London than most of the boys did in the battle field.

J: Tell me a little bit about the buzz bombs. They were the V-1. They were the slower ones?

C: Right. I can tell you about the first one. My buddy was chief radio man in my platoon. We heard this funny noise, and he woke me up. He said, "What is that?" I said, "I don't know. I never heard that sound before." Pretty soon, the sound quit. It just sounded like a motorcycle going up the road, a real rough running engine. When the engine died out, it wasn't long before there was a terrible explosion. You have to remember, during the peak, after the invasion--it was about two weeks into the invasion--Hitler unleashed this terrible secret weapon that he had. And it was terrible, believe me. I've read how many, but off hand, I can't tell you. When it first started, there was one every three minutes coming into London somewhere. This is before they had any defense. They weren't a fast machine. After they found out they could knock them out of the air, they sent their spit fires up, and they would just sort of tip the wings. They would get this automatic pilot thing off, and they could run them down, or they could shoot them down.

The British had their forces in Hyde Park, where they had their ack-ack guns, where they'd shoot a Jerry airplane coming over at night. I never saw them hit one, because they had these powerful search lights, and they would be up in the sky. They would pick out this airplane, and you'd see the tracers going, but you'd never see them hit it. Anyway, they sent all of their ack-ack guns to the southern coast of England to try to shoot them down. They did slow down for quite a while. I remember, it would destroy a city block when [it] hit.

J: The V-1's?

C: Yes. Actually, there were more people killed with these weapons than there were during the blitz.

J: The V-2's came a little later?

C: Yes. Just every now and then, one would come over. They weren't too serious. They didn't have too many of them. They were working on one to go to New York.

J: I read that.

C: Yes, they were working on one that would have enough power to land in New York.

J: That would shake things up there. (Laughter) Operation Overlord. How early did it start, and what do you recall about the earliest messages?

C: I don't know. Every now and then, we'd get a list of code names that we'd have to post. Overlord, or Neptune, was the very first part of Overlord. That was everything. Neptune [was] concerning the invasion, [and] Overlord was the invasion. Neptune started probably right after the African war, in 1943.

J: Did you have a clear conception of what was going to happen, or was it pretty much. . . ?

C: Oh, we knew pretty much [what] was going to happen. We knew the planned day two weeks before the invasion.

J: Really?

C: Some knew the day.

J: I want to get into some more specifics in a little bit. Everybody pretty much knew what was going to come?

C: Yes, the Germans knew it was coming.

J: Now, the plan was for sometime in the summer of 1944?

C: 1944.

J: What do you recall about coordinating the messages? Who had to be notified, and who had to plan?

C: Right after Eisenhower came back from Africa, he set up what they call a S.H.A.E.F. [Supreme Headquarters Allied Expeditionary Force]. Everything then was starting to jell. The real secret stuff was coming out of that office instead of our headquarters, which was still in the Selfridge building. We had transferred some of our men into S.H.A.E.F., naturally. And they had their own headquarters, which was outside of London. Still, they would get rushed, and we would have to do some of their work for them, because they didn't have the cable. We had the cable at our place.

By that time, we had high speed radio which, between two points, you could send clear text without [it] being intercepted. This was a real big thing. Between two points, this is working in the same system that an airplane auto pilot flies on.

J: But you had to be clear.

C: Right. If anybody got in between or intercepted it, it would break it, and then it would become garbled. They were using all of that. The real secret stuff still had to be encoded. There's one other part that I should tell you. Our office was a wall of communication between Churchill and FDR. You read about the talks they had together, conferences. They all went through our office.

J: There was a bit of a controversy over appointing Eisenhower to the head job. What do you recall about that?

C: I don't know much about that, just what I've read that the British wanted their general to be the head man. Of course, we were going to furnish the men, the material, and we furnished the money. So, it was only natural that we would have an American as a leader, because it ended up that way. We had so many more troops than the British. Of course, the British had been fighting the war for four years. They were running out of men.

J: The invasion [was] going to be June of 1944.

C: June 5. [That's when] it was originally set us [for], and it was delayed for 24 hours.

J: From everything I've read, there were certain conditions that they looked for, in terms of the tide and in terms of the moonlight. What do you recall about those things?

C: I wasn't in on any of that. That was decided at S.H.A.E.F. All of that material was done at S.H.A.E.F. headquarters.

J: But, it was originally set up for the 5th, and they called it off for a day?

C: Yes, on account of the weather. The weather was so bad that it really was in their favor. If we went across, the Germans weren't expecting us. General Romell had lost his post. He had gone home for leave. They knew or they felt sure that there wasn't going to be any invasion that night with the condition of the sea. The sea was terrible.

- J: What part did you play, or do you recall the attempt to deceive the Germans, making them think that we were going to invade at Pas'de Calais, across from Dover?
- C: That was all done through deception. The British ran that, pretty much. That was a British operation. They were good at deception.
- J: Secret messages that they knew could be broken?
- C: Yes. We put out a lot of pre-invasion [messages] to keep the Germans thinking that something was going to happen in the next few hours. We would just flood the air with dummy messages. We would take three or four guys off of our radio lines, and they would just write dummy messages. They would put them on the air. They would send them on the air, and they would fill the air with this stuff. The Germans, of course, would intercept everything that we put out. When they saw all of these messages coming, they thought, "Something's going to happen." When the invasion started, this is the way it was. The air was filled with dummy messages.
- J: But, they didn't know if that was for real or not.
- C: No. When we went across, this was a well-planned invasion, I'll tell you. We took our own drinking water. We took our own cable with us. We had a ship out there. We had a communication ship sitting out in the middle of the sea, and everything was coming through to us and S.H.A.E.F. We were in direct contact with them. The troops went ashore, and they were using their division field code. In all of my time, I think I only decoded one message that was in the field code, and that was delivered after the invasion, by pigeon. We figured the only way that it could have gotten into our place was because it was wounded. These were real cheap field code machines. [An] M-15, I think it was. Nobody in our place knew how to run it. (Laughter)
- J: But it actually came over from Normandy on a pigeon?
- C: It came from somebody in France.
- J: That's amazing. After the Normandy invasion in June of 1944, what types of things were being sent back from the beaches there?
- C: Like I said, that went through S.H.A.E.F. That went through another headquarters. We took the overload of that. We had plenty of that, too. Marshall was in England during the invasion, so that eliminated a lot of them going back to Washington. Then, we got overloaded with OWI [Office of War Information] messages. All of their stuff had to be censored in London before

it came over here. Then, we would get it from the censors, and we would send it to Washington along with wire photos.

J: Did that have to be coded?

C: That had to be coded, too. Then, it would be paraphrased, and [they would] take out what they wanted out over there. In the very beginning, right after the invasion, some of these guys were just writing everything, you know? Eisenhower had four or five officers that were attached to him personally. That was censored in London. We got a hold of that, and they were released to the London papers from that, too.

J: The invasion was pretty massive. Hundreds of thousands of men and tons of material. . . . What did you know about this as it was going on? Did they have very much on it?

C: No. Everything was pretty dead. In the first 24 hours, it was touch and go in Omaha. The other beaches, the Canadians and the British, they didn't find too much opposition, but we went in at a bad spot. We landed where Romell seemed to think we were going to land. Hitler still thought we were going to land in Pas'de Calais, up in the Dover area. That was the deception. That was the big part that England played in that, because they had played this up, and they released it in the papers and everything, [saying] that Patton's Army was still in England. The whole time, Patton was over there already.

J: Was he?

C: Oh, yes.

J: From what I understand, Hitler had made his reserves run back in case of the real invasion at Calais.

C: They still thought we had another Army coming across. It was 13 miles across there or something like that.

J: To Calais. It would have been disastrous if they went in there.

C: This is where they had their main defense. You couldn't have gotten into that.

J: As the invasion [was] a success and they [were] driving across France, what do you recall about those days?

C: We got a morning report from G2. As I said, we were the hub, and we would send that all to the different

headquarters. It would be written up and encoded in our office. Then, that would go out to Algeria and the Pacific Theater. It used to go to India, everywhere. This was pretty much a synopsis of what happened the day before, what had been cleared and what had gone through censorship.

- J: Do you think that you got a little more information than what a standard soldier would have been able to get?
- C: Yes. We knew what was going on. We knew when there was a big battle, there would be an urgent need for something.
- J: The war went pretty well in France?
- C: After the breakout at St. Low, yes.
- J: [Did you] breeze across France until the fall and winter?
- C: Then, they took Paris. When they took Paris, they took our headquarters, cut us in half, took half of our personnel from London, and they went to Paris.
- J: Did you stay in London?
- C: I got left behind every time. (Laughter)
- J: Did you feel good about that?
- C: Yes and no. I would like to see Paris and France. A buddy of mine, George Croxall, he lives down here in East Liverpool. [He] started out with me in the old 827th Signal Company, in Fort Monmouth. He went to Paris, and he ended up at the Nuremberg trials.
- J: Really?
- C: Yes. He was in the Army for six or seven years. He couldn't get out! He was one of them guys that they wouldn't let go. He was home on a 30 day leave, and he had to go back again. He wasn't any better than the rest of us, he just went to Paris. After things died down in Paris, he was in S.H.A.E.F. with Eisenhower, and they just moved right along.
- J: It [went] pretty well? Of course, that winter was the big battle.
- C: Battle of the Bulge.
- J: Battle of the Bulge. How critical was that?

- C: The Battle of the Bulge almost licked us, as a matter of fact, in two ways. We had more casualties during the Battle of the Bulge than we did in any other conflict or any other part of the war. It was winter and bitterly cold.
- J: Could you sense that concern there?
- C: Yes, because everything was putting a pinch on us. For instance, they started taking some of our rations and clothes away from us. Being in London, we always had to look nice. We always had the best clothes there were. The average soldier had one change of clothes and, I think, we had four or five. We were always dressed up. Then, they started taking some of our pants. We had long underwear. We never used them in London, but they took them. We all had gulashes, boots, and they took that kind of stuff, because this is right in the dead of winter when this Battle of the Bulge was going on. It started before Christmas time. Then, things really did speed up, because everything became urgent. They were running out of guns, men, and rations. If it hadn't been for Patton, we might have gotten licked over there.
- J: So, that was definitely a genuine concern?
- C: You better believe it. This was from the higher ups.
- J: From some things you read, it was really not that bad.
- C: No, this was bad. Believe me! The Battle of the Bulge was real bad. As a matter of fact, they were beginning to wonder about Bastogne.
- J: Yes, Bastogne was right in the middle there.
- C: That seemed to be the turning point. If the Germans would have gotten that, they would go right up into Belgium. The big thing was, after the invasion, we needed ports for our ships to come into. The big port up in Belgium, Antwerp, was in the British territory. They couldn't get to Antwerp. The Germans had that so well protected, and Montgomery tried to get in there. Everytime they would start, they'd get beat back again. Antwerp never became a working port, I don't think, until the end of the war.
- J: Bastogne held up, and the German attack petered out. What do you remember about the feeling after its apparent success?
- C: Then, we just counted the days until it was all over.

- J: As spring approached, we closed in, and the Russians were coming in from the other side, was there any feeling that perhaps they should do better and take more territory, to keep the Russians from getting in?
- C: This was all political. In other words, this was done in Washington, Moscow, and London. Our headquarters had a big part of that, because the British--I can't think of the British's head name. FDR's main man was--I can't think of his name, now. Anyway, these people were in the headquarters of London and flying in and out all of the time. They were using our headquarters as a base to get back to Washington. We were doing an awful lot of that work there. That's the political end of the war. After the fight was pretty well over, they got to this fighting with Uncle Joe. Churchill finally found out that Uncle Joe wasn't going to give, and that he had lied to Churchill about Poland. I just told my wife the other day. When they were showing President Bush in Hungry and Warsaw, I said, "I wish Winston Churchill would be alive today to see this, because actually, this is what the war really started over, Poland." England said, "We'll protect you. If Germany invades, we will fight."
- J: So, they traded one. . . .
- C: You see, yes. This is what started the war. I just wish that Churchill and FDR would be alive to see what, I hope, is going to happen here, now that we're going to see this iron curtain fold. Murray was this man's name. He was FDR's chief guy.
- J: What difference do you think might there have been, had Roosevelt lived to deal with. . . .
- C: Roosevelt, at his last conference, I feel certain that he didn't know what was going on. He was a sick man.
- J: What do you recall about his death?
- C: That was a big thing in England. It was just about as big as if the king had died, because he and Churchill were buddies. After all, look what FDR had given him. Number one, FDR couldn't wait to get us into the war, and when the chance came, we were in. It was a good thing, because I believe Germany would have beaten England, just like they did France. If the Japs hadn't invaded Pearl Harbor and gotten into the war, we could go to war against Germany and Japan legally, with some background. After Pearl Harbor, there wasn't any question. This is what FDR had been waiting on, a good

excuse. In the beginning, I was drafted for a year. He said to my parents, "We'll never send your sons overseas." Well, that was a lie, and he knew. That was propaganda, then.

J: But he had to find a good excuse.

C: He had to find an excuse.

J: What was the feeling towards the Germans and, of course, the Japanese, as well? Did you guys feel that you were doing the right thing, that this was the right thing to do?

C: Do you mean, fight?

J: Yes. Was Roosevelt right?

C: There's no doubt about it. Look what Germany did to France, and look what it did to all of the other countries that it took.

J: So, there was never any hesitation about it?

C: No! These were the days before drugs and the days before protests. You did what you were told, and did it! If you were told to salute the flag, you saluted the flag, and if you were told to pledge allegiance, you said the Pledge of Allegiance. Back in those days, you never thought about burning the American flag. Every morning in basic training, we got up at six o'clock and we would have to salute that at revelry. And in the evening, we would have to go out and watch the flag come down. The flag meant something to us boys, and it still does to me.

J: As the war closes down and it's apparent in Germany that they're done, what feelings do you recall about finally accomplishing this?

C: After we knew that it was over, we just felt bad that Eisenhower was told to stay and Eisenhower had to retreat 50 or 60 miles to where the line was. It was just too bad that we didn't take more countries. We could have gone into Bulgaria. We could have gone into Austria. We could have taken those Balkan countries. Of course, Churchill, he didn't really want to go across the channel in the invasion. He wanted to whip Germany through the Balkan countries. When he was in Italy, he wanted to go through Yugoslavia and Greece, and that area.

J: Do you think there was a real feeling that Stalin was going to keep those countries?

- C: Yes. We eventually knew what Stalin was. When they gave in and Eisenhower received his orders to fall back, we knew that something was wrong. These political guys were right behind the front lines. When they would take a town in Germany, we had a group that would come right in and set up a government. These people didn't have anything to eat. They were starving, and we had to give them food. This is a big thing that most people don't realize, how much food we had to take with us. From the very beginning of France, France had been starving for four years. So, don't forget that they lost the war in 1940. Hitler and Germany had taken everything out of France and taken it back to Germany. Everywhere we went, if we came 10 miles, we had to feed everybody in 10 miles, or give them medicine. This was a big thing. This really slowed the war down. It took food away from us.
- J: Do you think fighting the war fair, whereas the Germans didn't care, played a role? By fair, I mean taking care of the civilians.
- C: Well, what I read about Hitler, he didn't care about anything but Hitler and Germany. He was a cold blooded warrior.
- J: When Hitler finally died and V-E Day followed. . . .
- C: That was a big thing. When that hit our headquarters and we decoded that message--I was working that night. Our place was open 24 hours a day, and we had what we called platoons that ran everything, the whole message center: the radio section, the cryptography, the teletypes, and anything that was communications, even the transportation of motorcycles, and so on. We had that, too. I didn't tell you about that.
- J: What kinds of shifts did you work there?
- C: We worked eight hour shifts.
- J: I interrupted you. What was the feeling. . . ?
- C: When the war was over? We found out that Hitler committed suicide. Then, we were all thinking about points and getting home. I think I had more than 90 points. That's one of the reasons I got home when I did.
- J: What did you need to [get home]?
- C: I think it was something over 80 [points] that would get you home. I forget. I had over 90.

- J: You were anxious to get home. Was there any feeling that you might be sent to the Pacific to finish?
- C: No. We never thought about that, because--this is another story. We worked on the Manhattan Project, which was the atom bomb. We knew pretty much about that. You see, England was in on that, too. They had a scientific research lab in England, and they were communicating with Bush--not this president Bush, but another man by the name of Bush. The General that was in charge of that, I can't think of his name.
- J: Yes, I know about that.
- C: Anyway, that was another code name, Manhattan. We worked on that quite a bit. Also, we did a lot of work for the OSS, the Office of Scientific Research. Each one of these people had their own separate codes.
- J: Did you have any conception of what the atom bomb was going to do?
- C: No.
- J: You had [the] Manhattan Project, and you knew. . . .
- C: I'll never forget, early in the war, I was still out on the line and decoding. I deciphered a message that was top secret, and the words "heavy water" were in it. When you decipher a message, you go through it to see if everything is all right before you turn it in. To you and me, heavy water doesn't sound right, but you know what heavy water was in those days?
- J: Yes.
- C: This is when they invaded Norway, and they thought that Hitler was working on the atom bomb. This was the Manhattan Project. They invaded Norway, and like us, they were afraid that Hitler was going to get some heavy water. The average person, and I was the average person, didn't know what heavy water was.
- J: Did you think it was a mistake in the code?
- C: I thought it was a mistake in the code. I went back. I remembered going over that. Then, we were starting to read about heavy water. That message was back early in the war.
- J: The Japanese were pretty well beaten back, but it looked as though the invasion of Japan was going to occur when they finally dropped the bomb. Do you remember where you were when the bombs were dropped?

C: I was in England.

J: Still in England?

C: Yes. I didn't get home until October of 1945, and that was in August.

J: What do you recall about hearing the news?

C: I probably . . . I can't remember. I decoded the message when FDR died. That was released in England. I can't remember about the atom bomb. We knew all of that was going on.

J: Did you finally put the Manhattan Project together and the bombs?

C: Yes, but we weren't allowed to talk about that. Even us guys who worked in the code room, we weren't really supposed to communicate with each other about what we've seen or what we've done. As a matter of fact, you were talking about security. They used to follow us around quite a bit, especially if we went into a bar. They would be next to you. You could pick them guys out.

J: Did they listen in on conversations?

C: Oh, yes. They always snuggled up to you. (Laughter)

J: You were going to high-tail it home as soon as you [could]. What's the feeling you got as you got back to the United States, and of course, back to Ohio?

C: Well, [I told my wife], "It's all over now. Let's get married!" (Laughter)

J: When did you meet your wife?

C: I [had] been going with her all during the war.

J: Really?

C: Yes.

J: [Were there] a lot of messages back and forth?

C: Yes. We were high school sweethearts.

J: Really?

C: Yes. As a matter of fact, she worked for my dad.

- J: As you look back on the war effort--of course, the whole country was behind the thing--what feelings do you get about the whole accomplishment of beating them?
- C: Well, we had to beat Hitler. We couldn't live with that. When you were in the service, they showed you all of the propoganda films, why you were doing what you were doing. I've never had any problems about fighting the war. I just thought it was my duty.
- J: Looking back and considering today's point of view, do you feel any animosity or hatred towards the Germans or the Japs?
- C: No, not about the Japs. The Japs have gotten so far ahead of us in communications, for instance. Today, I'm sure we're doing pretty much what I did in cryptography, in London. I'm pretty certain of that, because if they aren't, they better be doing it. (Laughter)
- J: That's basically all that I wanted to cover. There's a lot of detailed things that I didn't have any conception of. I appreciate your time.
- C: Well, cryptography is a real interesting thing. I've read all of the books that have been released. There have been some real good books released about it, the big secret code machine, the bomb, it was called. The big code machine that they had, I might tell you a little bit about that.

A half dozen of us guys were picked to run conferences between Churchill and Roosevelt. As I've said, everything went through our headquarters. They actually took place down on No. 10, Downing Street, where Churchill lives. It was a very simple operation. Since then, I've read in books that Germany intercepted all of those conferences.

- J: This is between Roosevelt and Churchill?
- C: Yes. This is before we really had any secret, what we call, one-time tapes. When they started out, they were just using a telephone scrambler. [Do] you know what a telephone scrambler is?
- J: Yes.
- C: Then, they found out that there was a leak somewhere, [and] they started one-time tapes. A one-time tape--you might have read about that--is when a tape is used to encipher a message, and then it's immediately burnt; so that it can't be used again. In other words, that sequence of letters will never come up again.

J: How would it be decoded, then?

C: They have the same thing in Washington.

J: Oh. Then, they would burn theirs, too.

C: And they would burn theirs, too, one-time tapes.

J: [Were they] pretty fool proof?

C: Oh, yes. They couldn't be broken. Even our Sigaba machines--during the first few weeks of the invasion, after the break-outs, G.I.'s would do some crazy things. Apparently, they were traveling through a town in France somewhere, and they had a Sigaba code machine in their trailer, their truck. They went in to get something to drink, I suppose, and [were] looking for some gals. When they came out, their truck was gone. That put one terrific scare into our security system. As a matter of fact, we went off of our security system and went to a real low grade code for a few days, because we didn't know where that code machine was. We thought maybe the Germans went and got it.

J: What ended up happening to it?

C: It ended up, they found it in a lake.

J: Who would have put it there?

C: Well, who knows? But anyway, that was scary, because a German could have gotten our code machine. Apparently, they must have gotten some of our code machines, because we got all of theirs. When we'd overrun the German communication system, we got their stuff. Apparently, they would overrun us somewhere. We had to take that chance. But we changed our code, sometimes as often as every four or five hours.

J: Really?

C: Oh, yes. At least, every 24 [hours].

J: How would you let everybody know that you were on a different code?

C: We had code books. Everyday, the General, who ran everything in the signal service, would come down to our office and give us what we would use that day, our settings and everything.

J: So, it would be the same for everybody?

C: Yes, everybody had the same. . . . You had to. All of your messages depended upon the date on there, the time and the date. You would look to see if it was 12 noon or 3 o'clock. You would look in your book, and then you would know if there was a change of something like that.

J: What would happen if you didn't do it right?

C: Nobody would get it; it wouldn't get through. Well, you could go back. Suppose you made a mistake--we were trained in this. There [are] things that can happen. Suppose you transpose, when you set your machine--this often happened with these five rotors that we had. Suppose they were A, B, C, D, E, and you made a mistake. You transposed to A, B, C, or A, C, B. We'd go through all of the different suppositions that could happen. Sometimes you would be able to break it. The top secret stuff all had to be checked by another person in our code room. In other words, you set it up, and you would have to check.

I was a crew chief. I was responsible for my platoon later on. I was responsible for everything that went out of there. At one time, a top urgent message that the Navy was sending, came down to our office. The Navy used a different code than we did. We weren't allowed in the Navy code rooms, and they weren't allowed in ours. I think they used the same receivers, but a different set of wheels.

Anyway, in the early part of the war, a convoy was coming across--this is during the African war. A convoy was coming across, and they were supposed to be diverted. They were headed for an island, and they were supposed to be diverted to go down to the African end of it. The Navy brought this message to us, and we set it up in our code. We put it out, and Washington claims that they never got that. It never got to the people at sea, either. The radio man and myself, we were called in. They were about to break us, because they figured we didn't do it. But we had proof that we had sent it.

J: How did you keep track of what you sent?

C: Everything that I did had to be okayed by an officer, either a Captain [or] above a lieutenant, [and] they had to sign for everything, too. They were supposed to check it, but some of them second lieutenants that we had over there, we called them cannon fodder. They were sent over from Washington, "ninety-day wonders." They were sent to our headquarters to find out how we operated. Then, they went out in the fields, and very few of them came back.

J: What was the attitude towards the officers?

C: We had some good ones, and we had some bad ones. It's just like everyday. You had some bums, and you had some Gentlemen. Those "ninety-day wonders"--of course, we were all top grade sergeants. We didn't have any use for these second lieutenants. The captains and from there on up, they were good men. Most of them were.

J: I just have one more question.

C: Okay, go ahead.

J: What effect do you think that had on you after the war? Did it change the way that you looked at things?

C: After the war was over, we were called over to the American Embassy. The American Embassy and the State Department were still using obsolete code all during the war. An obsolete code is what we call strip code, very slow. None was electric; it was all manual. So as I was getting ready to leave, we were dismantling our headquarters. It was about ready to close down, and we were taking some of our equipment to the American Embassy, across the street from us. They just pleaded with us. [They told us that] they would give us a job to work for the State Department. In other words, [we would] get our discharge. But the catch was, we weren't allowed to come home for another year. We all wanted to come home for at least 30 days, because we had been away from home for four years. We wanted to go home for 30 days. I turned down a good job, I'm sure.

J: Yes, that probably could have led to something. So, you ended up coming back here.

C: Yes, coming back here.

J: And you got a job.

C: Yes.

J: Okay. I appreciate your time and everything. Thank you.

C: Thank you.

END OF INTERVIEW