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INAME: BEARG-HOPT, Hildegarde Vox

IPLACE: The National Cryptologic Museum, Ft. Meade, MD

IVIEWER: COOLEY, David P. (Dave), MUCKLOW, Dr. Timothy J. (Tim)

TR NOTE: ((Mr. Cooley and Dr. Mucklow interviews Hildegarde Bearg-Hopt telephonically. Mrs. Bearg-Hopt's daughter, Nancy Bearg, participates by reiterating some of the questions, so that they can be better heard and understood by her mother. I did not include Ms. Bearg's reiterations, except when some additional clarification was required. Ms. Bearg forwarded her own transcription of the telephone interview. Because some parts of the audio recording are weak, I used this transcript for further clarification of some of the questions and answers. Ms. Bearg also provided a photograph of Mrs. Bearg-Hopt taken in 1941 and one as she sat for the interview below.)) Mr. Cooley begins:

**Cooley:** This is NSA Oral History 2013-30. Today is 15 March 2013, and we are talking to Hildegarde Bearg-Hopt, who worked for the Army Signal Corps during World War II and was stationed at Arlington Hall. This interview will focus on Ms. Bearg-Hopt's efforts during World War II. My name is David Cooley; I am the Oral Historian with the Center for Cryptologic History. Along with me is Dr. Timothy Mucklow, Senior Historian at the Center for Cryptologic History. This interview is being recorded in the conference room of the National Cryptologic Museum. Hildegarde, welcome. We in the Center for Cryptologic History appreciate you donating your time for this retrospective look at your efforts during World War II. With that in mind, would you provide us an overview of your academic background; then how you became involved with the Army Signal Corps during World War II?

**Bearg-Hopt:** Okay, I went to the University of Minnesota and graduated in 1941 with a Business Education Degree. I was teaching in Alexandria, Minnesota in the Business Education Department, including some accounting and

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bookkeeping. And it was in 1944 that... In the early spring, we received—I believe it was—a newspaper account of some Signal Corps recruiters coming to Alexandria for jobs in Washington, and my very good friend, Marie Saunders and I, decided that we might be interested. So, we went down to the appointed room and talked to the recruiter, and he said we needed to take an Intelligence Test in order to be hired. So, we were really interested and we both took the Intelligence Test and we both passed. And I was very pleased to be complimented by the recruiter when he said I had the highest score that he had seen in his recruiting. So, Marie and I both decided to go on a date shortly after school ended in which was in the early part of June. And we went to Washington D.C., by train and were pleased to have Pullman births so that we felt quite special. After arriving in Washington, D.C., somebody met us and they made suggestions as to places where we could go to get a room. And we did so and ended up in Arlington with a couple from southern Mississippi, who had come to Washington specifically to buy a house and rent out the rooms to girls working in Washington. And anyway, we did stay there for a few months and then found another place on Glebe Road, where we had meals in the main house and the three of us, Maria, I and another girl lived in a little garage that had been converted into living space. Anyway, then we were ordered to go to Arlington Hall, and it was there in Arlington Hall that we received our training. I think it was actually only about three weeks and then we were assigned to jobs in one of the buildings that had been added.

**Cooley:** What exactly...What kind of training did you get?

**Bearg-Hopt:** Well, you know, I really remember very little of the training. It was dealing with numbers and learning substitution of words for numbers, and they showed us a page which was the kind of page we would be working on to decipher and decode.

**Cooley:** So, it was training specific to the type of messages that you were going to be working on?

**Bearg-Hopt:** Yes, it was training specifically for what we were going to do.

**Cooley:** Okay, great. What exactly were you assigned at Arlington Hall? What was the job, and what type of... You know, were you in a specific unit? Or how did they designate you and where did you work?

**Bearg-Hopt:** Well, they told us it would be decipher a message of the Japanese origin, and we were working in a big room filled with tables of people who were all doing the same thing. And I think that actually, more than one person had the same set of messages to work on so that they could coordinate and, of course, the ones who were able to do their page first were

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considered better workers. And on these pages of messages, there were about twenty-five messages. They were spaced, oh, an inch or so apart, and they started at different points on the page. Some were short messages and others were longer. And each message consisted of four digit numbers, and so in order to start working on a page, we looked for messages that were quite short, because often those were the messages of some sailors or soldiers having been killed in battle. And these were messages being sent to the parents, so the words for... Or the numbers for those words were applied to a column and then if we could get three columns that made sense in all of the messages, then we felt we had a correct translation and then we were ready to go on in the longer messages using the numbers for words that we thought would fit in with what had been gleaned in those first three words that were done because we got code from the death notifications. So we worked, trying to make sense of the messages using code that we had and we tried to transcribe each message completely. We, of course, found new words for new four-digit numbers, so that improved our code we got... We had more knowledge of the code with more words deciphered.

**Cooley:** Could you describe some of the information that you were able to glean from these messages? What type of information was actually being carried in these messages?

**Bearg-Hopt:** Yes. Sometimes we found locations or positions of certain ships, and sometimes there would be orders for those ships to move. So those were some of the important messages.

**Cooley:** Okay. So, this was basically Japanese Maritime traffic or Maritime control traffic?

**Bearg-Hopt:** Yes, it was.

**Cooley:** Okay, great. How did you prioritize these messages? Or, did you just come in and work on the first message that came in or was there a priority that was established by some code in the message?

**Bearg:** ((Ms. Bearg addresses Mr. Cooley.)) Dave, I think, you know, she was given, every day when she came in, a sheet of paper, and she told me that it was about ten inches by twenty inches.

**Bearg-Hopt:** It was fifteen.

**Bearg:** Fifteen by twenty. And it had all these numbers on it and separated, maybe, by a space which indicated, in between messages. So, she was just given this... This massive piece of paper, as all of the others were, and then as she explained, she would start where she thought there was a

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short message, but you can ask her whether she was able to choose what pieces of paper they gave her. I think the answer is no.

**Cooley:** Okay.

**Bearg-Hopt:** Well, as we worked along with the parts of the messages that (B% work) more or less common, if we filled out words included in the other messages and then we worked with taking these that would make the most sense and gave us clues as to what words might occur in that message.

**Cooley:** Okay. Talk to us a little bit about...

**Bearg-Hopt:** ((She says something inaudible. Just a few words.))

**Cooley:** Talk to us a little bit about what your schedule was like while you worked at Arlington Hall. Did you just work eight-hour days, or were there swing shifts or how did you work?

**Bearg-Hopt:** I worked all three shifts. We just switched routinely from day shift to swing shift to graveyard shift which was, of course, the hardest.

**Cooley:** Did you have a team of people that you worked with contin...All of the time?

**Bearg-Hopt:** We didn't necessarily work with the same team. Uh, I think when we entered the room at the beginning of our shift, we were told where to sit and it might have been the same person or persons as the day before. But then again, it would vary.

**Cooley:** Okay. What other types of military activities were you involved, or were you required to do while you were at Arlington Hall? Do you remember?

**Bearg-Hopt:** Well, we had sessions with the leaders in our room where they graded us, and based on what we had done. I received one promotion during the time I was there, so that meant an increase in salary too which was very nice. We were required sometimes, to go into the rooms in the basement area, where they actually received these messages on machines. And somebody down in that area prepared the sheets that we used to work on. We also sometimes had the privilege of seeing movies of battles that had been fought. Battles that supposedly our messages had deciphered the clues on. So, they were complimenting us on what we had done.

**Cooley:** Okay. Could you give us some of your fondest memories of working at Arlington Hall during World War II, one or two of the things that you've always remembered about that period of your life?

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**Bearg-Hopt:** Well, it always was a very special time in my life. I left in the summer of 1945, probably in mid-August, because there was a possibility that I could go visit my husband who was stationed in Panama. Well, it turned out that because the war in Europe ended in August, they would not allow any wives to travel to Panama because they figured he wouldn't be there that much longer. I think my fondest memory of being at Arlington Hall and doing this work, was feeling so close to the war effort and, of course, the fact that I was able to see so much of the history of our country by traveling to Mount Vernon and going to...and over to Norfolk, Virginia and going to Williamsburg and going to a lot of the embassies in Washington. It was just a very special feeling to be there, and I talked about it to my family for all the while they were growing up, resulting in my daughter Nancy actually going to Washington, D.C. to work, right after her graduation from Willamette College ((University)) in Oregon. So, at any rate, for me and my friends that I worked with, it has always been a special time in our lives, and I'm very glad that I had done this. One of my friends stayed on and continued to work for the Signal Corps for many years. So, that was really good, and I don't really know that we, who were just little cogs in the machine, contributed a terrific amount, but whatever we did, I'm really glad we could do it.

**Cooley:** Go ahead, Tim.

**Mucklow:** Yes, this is Tim, here. Let me ask you, "Do you remember how much you were paid initially when you began work there, and then after you were promoted, again, how much you made after that?"

**Bearg-Hopt:** ((She laughs.)) Well, I was an SP—and I'm not sure about this—an SP5, and I went to an SP6. I think my salary was three thousand, something, but I am very, very vague on those. I'm very vague.

**Mucklow:** Okay, well that's fine. Uh, let me ask you, were there any...Did you ever get any messages which you could not any headway against?

**Bearg-Hopt:** Yes, I think there were some like that, and then we would turn them back to our leaders, and they did something which I couldn't do...Gave it to somebody else to work on.

**Cooley:** ((Dave whispers to Tim.)) Ask her what percentage (B% did she get.)

**Bearg-Hopt:** I don't recall that happening very many times.

**Mucklow:** In the course of your daily work, how many messages did you generally work?

**Bearg-Hopt:** How many messages? Well, it usually took at least a day and maybe

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more to do the messages on one page. So, I suppose I worked on between twenty or thirty messages a day.

**Mucklow:** Wow! That's huge!

**Cooley:** That's huge, that's really...

**Mucklow:** What percentages of the messages did you have success?

**Bearg-Hopt:** Well, as I recall, we turned in our message sheet when we had deciphered all of the messages.

**Mucklow:** Okay. What... Do you remember what the most significant problems you encountered in breaking out a message?

**Bearg-Hopt:** I can't say that I really recall, but it probably would have been a message that was very different from the other messages in nature.

**Cooley:** Do you remember any particular message that had some really significant information that you were able to glean.

**Bearg-Hopt:** Well, I know that I had at least one important message about movement of ships, more than one. I thought those were probably the most significant: movement of ships; locations of the ships.

**Cooley:** Was there any particular ship that you remember receiving a message from, that was involved in something of high priority?

**Bearg-Hopt:** I wouldn't know.

**Mucklow:** Were you ever told to watch out for a particular piece of information?

**Berg:** Oh, yes, the movement of ships was something that was very important, and we always notified our leaders when we had that kind of message.

**Mucklow:** Were they interested in the types of cargoes? Besides ship's movements, were they interested in the types of cargoes being carried?

**Bearg-Hopt:** Oh, yes.

**Mucklow:** That's good.

**Cooley:** Okay. ((Dave and Tim exchange thoughts, but what they're saying is inaudible.))

**Mucklow:** Were these messages generally the "noon-day reports", or were they ad

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hoc messages?

**Nancy:** ((The daughter asks Tim a question.)) Tim, did you say, "noon-day messages"?

**Mucklow:** ((Tim answers the daughter.)) Yeah, generally the Japanese Navy reported at least once a day, in terms of location and so forth, but as just a matter of rote. Bud did she handle ad hoc traffic.

**Bearg-Hopt:** I really am not aware of how they assigned the messages. It could have been that they thought that some message that might be important should be included on...with some other message, but I don't think anyone really had any knowledge of what message might be more important than the other. But again, that is something that I only can conjecture.

**Mucklow:** Did you have to learn any Japanese words or phrases in order to perform your tasks?

**Bearg-Hopt:** Yes. I learned a great many Japanese words and phrases, and I knew the code number for that. I did not have to look to my sheet of information, because I had memorized it.

**Mucklow:** Terrific!

**Cooley:** Excellent, good.

**Mucklow:** This is (B% Bingo.) We...This is good!

**Cooley:** Good. Any...We really appreciate your time, here. Thank you very much! And do you have any closing comments, Hildegard, that you'd like to talk to us about?

**Bearg-Hopt:** I don't think I have. I think I've covered it pretty well.

**Cooley:** Okay?

**Mucklow:** Yeah.

**Nancy:** ((Her daughter is suggesting some information that her mother might provide, like the date, her age and where she lives.))

**Bearg-Hopt:** Well, as you know, these are the recollections of a woman who is now almost 70...92 years old, and this is 70 years ago. So, I, you know, hope that my recollections have been accurate. My recollections up to this point are very good, so I do feel that I have given you a pretty correct recollection of those days. I am living now with my husband, who is

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almost 99...

**Mucklow:** ((Tim comments...)) Oh, my Goodness!

**Bearg-Hopt:** In a caring, a retirement center in Boise. We are independent so far and do not have to be in assisted living. So, I guess we are pretty hardy. ((All laugh.))

**Mucklow:** Well, congratulations!

**Cooley:** Yes!

**Mucklow:** And I, for one, want to thank you for your wartime contributions, and this has been an absolutely fabulous interview.

**Cooley:** Yes!

**Mucklow:** For which we really... You've given us more than you know.

**Cooley:** Hildegard, again; Nancy, thank you very much. We really appreciate your time and efforts and considering talking to us, and we've gotten a lot of information here. We appreciate it, and we'll try to get a copy of the transcript out to you as soon as we get it transcribed, okay?

**Nancy:** Well, that would be great! Would you like me to take a picture of mother?

**Cooley:** Yes, please!

**Nancy:** And I could email it to you, David, at your... I hold your email addresses and you could just see her sitting here and talking to you.

**Cooley:** That would be great, Nancy. We'd appreciate it!

**Mucklow:** Well, since she's already offered, maybe you could get here to send a picture now and then one then, if she has one taken during the wartime.

**Nancy:** Sure!

**Mucklow:** That would be terrific!

**Cooley:** That would be great!

**Nancy:** Okay, I will do that, and so... Okay, well I will pass along your thanks and your comments to her.

**Cooley:** Great!

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**Nancy:** Thanks for doing this interview.

**Cooley:** Thank you, very much, Nancy for facilitating it. We really appreciate it.

**Bearg-Hopt:** Thank you very much for doing the interview. It was an exciting experience.

**Cooley:** Great!

**Mucklow:** And by the way, we are conducting this interview from the National Cryptologic Museum. If you are ever in the area, we would be happy to give you a personalized tour of the museum.

**Nancy:** That would be wonderful! She has visited it once.

**Mucklow:** Oh, okay.

**Nancy:** But I'm sure that she would like to visit it again.

**Mucklow:** Yes.

**Nancy:** ((She's now addressing her mother.)) They've invited you to take a personal tour of the Cryptologic Museum.

**Bearg-Hopt:** Yes.

**Nancy:** I mentioned that we did go once.

**Bearg-Hopt:** We did that.

**Cooley:** Just give us a call, and we'll set it all up for you.

**Mucklow:** Absolutely!

**Bearg-Hopt:** Well, thank you.

**Cooley:** All right, okay.

**Bearg-Hopt:** Thank you.

**Cooley:** All right, thank you very much.

**Mucklow:** Thank you!

**Cooley:** And have a good day.

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**Bearg-Hopt:** Thanks, again. ((The interview ends here.))

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