

already greater. The system of accounting, which the Congress demanded on that sort of thing. So, what I did was take all the costs that had accrued to the whole darn project and divided them among the 54 and then allocated them according to completion, and that way they all finished at the same dollar amount! Well, it had to be done, and we were also running a lumber mill down the coast of Alaska farther away, which I did away with.

Q: You closed the lumber mill?

A: Yes, the District was running this lumber mill down there.

Q: The District?

A: You had to have lots of lumber during the war, you know, and there was a lot of hemlock and that kind of tree in that area, and they were sawing trees and lumbering like nobody's business. When I got there we had some 20 million feet of lumber in storage over in Fairbanks.

Q: Did the District actually build that lumber mill?

A: I think so. I don't know what happened to it. I stopped it after awhile, but what happened to it after that I don't know. Oh, during the war those District Engineers were pretty darn competent guys about getting things done. It'd been put in the proper place where there was a big supply of lumber, and in those days you didn't have environmentalists telling you you couldn't cut the trees down. Who owned the land? I think the government did, I suppose, I don't know.

Q: In April 1949 you were appointed Acting Assistant Chief of Engineers for Civil Works. I know we've already touched upon this, but can you go over how you received this appointment?

A: Well, it goes back to the time when I was in the Kansas City District, and General Pick came back from Burma. He had started all the major works on the Missouri River. You've heard of the Pick-Sloan plan, which was the plan for the development of the Missouri River; Pick being the Engineer and [William G.] Sloan being Bureau of Reclamation.

This was an approved plan and had gone through all the Congressional steps. When he [General Pick] left--of course Fort Peck had been built before this--it had been built under the REA days or whatever the initials were, but the plan provided for the construction of Garrison and Oahe and Fort Randall and the one at Yankton. Subsequently, a power dam was added to it, about halfway down the river. But, he wanted to come back there and finish his plan, or at least get it going, and he did. He found in Kansas City a strange guy he'd never heard of, who'd been there about six months. General Pick was, like so many people, almost a genius. Liked to have people he knew and trusted around him. He had his own coterie of people who he took from the District to Burma! And when he came back they came back.

But here was a strange guy in Kansas City, and our relationship for a little while was strange, and I could see that I was not his favorite person. He had sort of a pulse-feeling fellow, not an employee of the District, but he was closely associated with them otherwise, he used for PR purposes. He sent him down to Kansas City to discover what the reaction would be if he had me relieved, sent somewhere else.

By that time I'd gotten pretty close to the people in Kansas City--this fellow has told me the story since, and he went back and told Pick, he said, "Don't you dare touch him." He says, "You'll be starting a volcano down there. Potter's well ensconced. Get 'im in the team." And, since that time I was a member of the Pick team. And, while he had his peculiarities, they were the kind of peculiarities that said, "Let's get the job done and to hell with who we walk on top of." And, oh, just an example--when he was put in charge of a large military construction program for the whole Missouri Basin at the start of the war, he could see that lumber was going to be a problem. So he bought all the lumber that was available anywhere, and everybody else that wanted lumber later had to come to him if he could spare it. And, he built camps all over. I think, I'm not sure, he built the Japanese internment camp or not, but military camps all over he did. But, that's the kind of guy he was. He saw a job, he went out, and he got it done.

Anyhow, I then became an accepted member of the Pick team, and when the problem in Alaska came up, I think he was the one who recommended to General [Raymond A.] Wheeler that I could probably straighten that problem out. They relieved the other District Engineer, and I went to Alaska on darn near a moment's notice. Mrs. Potter and the kids followed me and came up by boat. I went up by air. Had a nice house, nice living.

Q: Let me read to you one of the stories that I've heard. This is from the transcript of another person who was in OCE at the time you became acting Assistant Chief of Engineers for Civil Works. I'd like to get your reaction to this. "The best example of Pick surrounding himself with his own cronies was when he selected Potter to be director of Civil Works. I'll say one thing about Joe Potter, he turned out to be a hell of a great guy. But he selected Joe Potter. Joe Potter at the time was a District Engineer in Alaska. He was a colonel. He selected Joe Potter and he brought him in, and the job called for a general, a brigadier general at that time. So Potter never got the title of director of Civil Works. He had the title acting director of Civil Works. Well, he was on a year. I don't know how long Joe was on, a year, year-and-a-half, and then the guy told him he had to get a general in there. And he, Pick, didn't pay much attention to what his superiors in the Pentagon were telling him. So one Friday afternoon, he got the word Joe Potter was out and for him to have a general in there by Monday morning."

What the fellow was saying was that Joe Potter was brought in as a colonel by General Pick because Joe Potter was a good friend of General Pick's, but he was brought in as a colonel and the job called for a general, and General [Peter A.] Feringa who had been your predecessor, had been given the one star. And because General Pick wanted you in there, he took you in as a colonel. And it was only when there was congressional pressure that you were given-- excuse me, that's not right.

A: No.

Q: No. It was when he got pressure from the Pentagon that you were given the one star.

A: Well, a part of that's correct. The job previously, and I think by law, provided that the Chief of Engineers could appoint a colonel as chief of Civil Works and give him the grade of brigadier general. The Chief of Staff of the Army rescinded that authority and said that all general officers in the future would be appointed by the regular selection process. He's right that I was put in there as "acting" because Pick couldn't do both things. He couldn't have a general officer in there if I was going to be filling the job. So, for a year-and-a-half or so, I was acting as a colonel. And then due to the fact that by that time I had made some friends in Congress, one of them went to the Chief of Staff and said, "Why isn't Potter general?" So they solved that problem by telling Pick to take me out of that job, which he did, and brought in General Chorpene who did a fine job there.

He then made me assistant chief for Special Projects. And among those special projects was the St. Lawrence Waterway, and for about a year I was charged with reviewing the plans, seeing that the plans were right, and then selling the St. Lawrence Waterway to the Congress. It was a rather time-consuming job, and I thought I had it sold. But one of the states concerned had highly important union people who were in the mining business and the railroad business and that one state wouldn't support it. So, it didn't go through the Congress for authorization at that time, but did within the next two or three years.

But, during the time I was on that job--oh, incidentally, I might say that when I was due, after Alaska, to go to the National War College. Pick said that that wasn't necessary; he wanted me at Civil Works. So when the heat got tight, he put me into special projects. And when the St. Lawrence project was not authorized, he told me he wanted me to go to the National War College. Two Engineers went to the National War College every year, which is one of the greatest educational experiences I've had--if colleges were like that I'd stay in college all my life. It was a fascinating experience. There were top-drawer people from all over the world lecturing us every morning, and meeting in committees thereafter with the same

fellow. A staff made up of historians and strategists and all that kind of expertise. But we had everybody who was of importance in the world address our classes.

I was there a year, but to show you the kind of guy Pick was, there was one appointment that he could control. The head man or the chief or the general in charge of the Industrial College, which is on the same site as the War College, had two assistants, both of whom were brigadiers. And whoever went in those jobs was a brigadier. The National War College, at the end of the year, divided into three teams and visited various parts of the world. I was on the team that went with General [Harold R.] Bull, who was the commander of the National War College, to Europe. And when we're in Paris, he called me in one day and he said, "You've just been made a brigadier general." Pick had appointed me to that job in the Industrial College. And that automatically made me a general officer. And I think that I'm the only officer who was ever made a general officer while he was a student at the National War College.

But that's the way Pick worked around, and that's the way I got my first star. And I remember talking with General Scott and Mrs. Scott, who are dear, dear people, and they both said that they thought it was great but they thought I was a little young. And I said, "How old were you, Stanley, when you were made brigadier?," and he was a year younger than I was! [laughter]

Q: I guess that shut him up.

A: Yeah. Well, anyhow, I was to be assistant commandant--"commandant," that's a word -- of the Industrial College. And it was funny, in Europe, as soon as I became a general officer, I was due to have an aide. Well, this turned some noses up, and every time our group went to another country, why, the military commander there would make sure that I was singled out and taken care of. It was embarrassing at times.

Mrs. Potter and I were assigned a house at Fort McNair, where I was going to live, and this was after graduation. And we went to the house and

decided what color we wanted the inside painted, and what changes we might want. And she was sitting on the floor one day over there and I came over, and I said, "You don't need to worry about this house anymore. General Pick's sending us to Omaha." Whereupon she wept and carried on because it would have been a nice life there, you know. A nice club, beautiful surroundings, and an academic milieu. So we took up our furniture, and I went to Omaha as Division Engineer in 1952.

Q: Well, let me go back a bit then and pick up some things about your days as Assistant Chief of Engineers for Civil Works. Let me read something else to you, another transcript.

A: Okay.

Q: This is called snitching. "I always remember when Joe Potter came in. He called us in, and he told us he was going to put a confessional in front of his office with some crying towels on it because from now on, as far as we were concerned, we were going to be nobody, and the Division Engineers were always right." If the Division Engineers wanted anything, we automatically approved it.

Well, after about six months of that, we had rubber-stamped everything. We got six months of that. Potter calls again and said, "For God's sake, those Division Engineers are going to drive me out of my mind. They're directing me up on the Hill. I can't even go up on the Hill because of all those dumb things they're doing. Get after them." Do you have any comment on that?

A: I don't specifically remember it, but having been a District Engineer twice, you can understand my mental attitude. The Chief of Engineers' office was a restrictive device to the fine things we wanted to do. But after I got there, I found out how perfect the Chief's office was. And also, less jocularly I guess, the Chief's office had I don't know how many hundreds of projects around the United States about ready for construction, under construction, authorized and ready for construction, ready for submittal of their studies to the Congress. And it became quite obvious that our relationship with the Congress determined what was going to be done. So

our budget, and also we had an amount of money that we could frame into for all of the things that were under way. So your budget had to be made around the envelope that we had to operate in. So if I did say that, and you can understand why I might have said it, you can understand why I changed my mind.

Q: As Chief of Engineers, was Pick as unpopular as some have claimed? In fact, some have gone so far as to maintain that the only reason why General Pick became Chief of Engineers was because President Truman wanted him to be Chief. Is there any truth to that?

A: Pick was not a West Pointer. As I told you, he was a stepper on of things. I mean, he and Leslie Groves were a great deal alike. Groves admired Pick very, very much, and counted on him to no end during the war to get military construction done in the whole area, the Missouri Basin, and I think farther than that even. He really relied on him, respected him, and he gave him sort of a free hand.

Groves was not a popular officer in the Corps or in the Army because he was hard-handed in dealing with people, and Pick was exactly the same. So because of two reasons: he wasn't a West Pointer, which I think was important, I mean in generating some feelings, because the Corps had always been West Pointers. And the fact that he had operated like he did operate, and understood politics to no end. He was unpopular with a large group. So unpopular that when General Wheeler was to retire, the Chief of Staff asked him to stay on for an extended tour. But Truman wanted Pick, and finally the Army had to give in.

Q: I'd like to go through again a series of personalities and get your reaction to them. These are mainly people whom you dealt with while you were Assistant Chief of Engineers. Will Wittington, chairman of the House Flood Control Committee.

A: Oh, yes. What a guy. There was the ultimate. He'd been in charge of the Flood Control Committee for goodness knows how long. You were answerable to Will Wittington when it came to a project in his district and on the Mississippi River. I think everybody on the Mississippi River went to

Wittington to make sure that he would be for the project when it happened, or when it came up. He was a fascinating fellow to deal with. One of his ploys, I forget the name of the little river that went through his district--

Q: The Yazoo.

A: The Yazoo, I guess. There was a study on the Yazoo authorized and under way, but it never got finished. It never got finished because Wittington always wanted to say during election time, "By golly, I'm going to get that study done, and we're going to get this thing built," you know, and he could answer all questions by answering the question on the Yazoo River. He was really the traditional, old-time type of congressman. But he knew his business, and he knew flood control.

Q: Bruce Tucker? He was Senator [Richard] Russell's assistant.

A: Yes. A very funny story about Bruce Tucker. When I was due to leave the Canal Zone, and when I was an aspirant to be Chief, my successor in the Canal Zone was one of Bruce Tucker's favorite fellows. And he almost cursed me for getting him out of the way so he wouldn't be in the running for Chief. What was his name? He was my successor in the Canal Zone. He only stayed there two years. He didn't like it down there.

Q: Frank Boykin?

A: Oh, what a creature! Honest to goodness, what a creature! He used to bring bear steaks up and have dinners in Washington when it was illegal to have bear steaks. Loved his little toddy every now and again. I'd be going through one of the tunnels under one of the Houses of Congress, the House of Representatives, and here Boykin would come down the other way with a group of constituents, and he'd say, "Stop. I want you to meet one of the most important people in Washington." [laughter] I had to meet and shake hands with every one of the constituents there.

Q: How about Clifford Davis from Tennessee?

A: I knew him, yes. He was another of the traditional

types. Wore his crutch long after he was shot just so he could say, "I defend your principles up there." These guys were competent congressmen. They represented their bailiwicks. But of course, then, politics was not the same as it is today. It's an entirely different thing. You didn't have welfare, you didn't have food stamps, you didn't have all those other things.

Q: Right. Do you remember John Rankin, of Mississippi?

A: Not too well, no.

Q: He had quite a reputation as a bit of a Red baiter as I recall.

A: Oh, I guess so, yeah. The top-drawer guy was the senator from New Orleans there.

Q: Well, there was Senator Overton.

A: That's it.

Q: Of course, he died in '48 before you got there. John Overton.

A: No. I knew him on the Hill. Went to a dinner he gave in New Orleans.

Q: It must have been before you came to Washington. I'm doing some work on the Mississippi River right now, that's how I know these people.

A: He was the dean.

Q: Yes, sure enough. Overton Brooks?

A: Congressman from what's the name of that town up the Red River?

Q: Shreveport?

A: Shreveport, yes. All these guys lived and died with flood control.

Q: Yes. Let's turn our attention to some of the people who worked with the Congress but within the Corps. You've already mentioned some of them, but how about General Feringa?

- A: I knew him pretty well. He understood the job of being chief of Civil Works very, very well. Very popular on the Hill. He left there and went down to New Orleans to become the head of some company down there. Was it a power company? I think it was, yes. No, he knew the business. Not necessarily a close friend, but he knew the business.
- Q: Was he--would you classify him as an extrovert? Did he seem to get along with people?
- A: I think he was extrovertish. I mean, you had to be on that job. You couldn't be a retiring and sit-in-the-corner person.
- Q: Right. General Hugh J. Casey?
- A: Oh, one of my top favorites. This was, is, a great, great man, and his career shows it. They--he and his wife were, I think, first lieutenants at Fort DuPont when I went there and they sort of father-figured me for a while, and, oh, we had the same group of friends. And, of course his success in the South Pacific shows what kind of guy he was. A real volatile Irishman type.
- Q: General Leif Sverdrup?
- A: Sverdrup was as dear a friend as Casey. I didn't get to know Sverdrup very well until after the war when he had come back from the war and took over his company again, Sverdrup and Parcel. And if ever there was an extrovert, it was Leif J. Sverdrup. And he masterminded a great many things that happened on the Missouri River. He was totally accepted and a member of every group that existed in Kansas City and in Missouri. He wielded an enormous amount of power in Missouri. When I was with the World's Fair and wanted a Missouri exhibit, I went to Leif Sverdrup and said, "Let's get going," and he did.
- Q: Okay. How about Major General Chorpeneing?
- A: I think I've commented on him. Different type of guy than the others. Very self-assured. I don't think he had a fear of anything that had to do with civil works. He was more or less hauled out of bed to come and replace me.

Q: Major General Emerson Itschner?

A: Yes. Emma--I would say that Emma's a good friend of mine. He had to put me in a very untenable position at the end of my tour at the Panama Canal, which we'll get at later I presume. I always considered him a great friend. I'm sure he didn't want to do what he was forced to do, but I respect him.

Q: Could you discuss for a moment the effect of the Korean War on Corps work during this time, particularly since you were involved mainly with civil works? Was there a major impact on civil works operations because of the Korean War?

A: What were the dates of the Korean War?

Q: The Korean War started in '49 and lasted to about '53. So you were right there in the midst of it.

A: No, I don't remember that. The biggest project that the Corps initiated while I was there, that I had nothing to do with, was a military project up in Greenland.

Q: That was Operation Blue Jay, I think it was called.

A: Yes. And I remember sitting in meetings with Pick and Pete Kiewit, who he wanted to be the prime contractor up there, but as I said it didn't impinge on me at all except as an advisor to Pick, and I sat in meetings when they were discussing organization, scales, reimbursement, and that sort of thing. And I forget who was made District Engineer up there.

You know, going back to Casey, he and Roy Lord were two of the officers up at Passamaquoddy during the days of FDR.

Q: Right, yes. We've got a Passamaquoddy file. We have quite a number of those reports from Casey. Very interesting. You were in OCE at a time when there was real concern about Red infiltration into the government and agencies. Of course, this was a time just before McCarthy first started talking about--

A: Yes. I don't have any memory of anything like that at all.

Q: Okay. How about interaction with the Hoover Commission?

A: Well, I guess as far as any recommendations of the Hoover Commission were concerned, they had to be considered as bitter enemies.

Q: You mean the Hoover Commission and the Corps?

A: Yes, the report of the Hoover Commission concerning the Corps. We had to consider them suspiciously. In that connection, at one time when I was in the Canal Zone, Sherm Adams came down there. And we were leaning on the locks one time, and I happened to--maybe this resulted from a Hoover Commission recommendation, but I sort of broached the question about the fate of the Corps and all that. And he said, "Damn it all, General," he said, "if the Corps was done away with, we'd have to invent it all over again." [laughter]

Q: Paraphrasing Voltaire, I suppose.

A: Yes.

Q: Did you have to give testimony frequently at Hoover Commission hearings or anything like that?

A: Never that I remember.

Q: How about the St. Lawrence Seaway project? You mentioned it briefly.

A: Yes. At one time, when we were all ready, I took a group of congressmen from, I guess, Montreal up the whole St. Lawrence Seaway and ending up at Duluth at the upper end. And went all over the whole thing. Went over the taconite production and all of the things that were going to use the St. Lawrence Seaway, the lock, and the Welland Canal. I tried to show them the importance of being able to have complete navigation up through there. We also dealt with a civilian organization in Washington. Danny Danelian had formed an organization after he left the government--when he was with the government he had to do with the St. Lawrence Seaway

maybe in the Department of the Interior or Commerce--Commerce, I guess. He was its chief. Its purpose was the promotion of the seaway. Subsequently, he widened it to many other things, but during the time I knew him, that was his main thrust in life, to develop the St. Lawrence Seaway. And subsequent to the time I could not get it authorized, he followed through and did get it authorized. Quite a guy. An Armenian. A great politician.

Q: How about the Tennessee-Tombigbee?

A: That was a subject that was under study. The Warrior River did have locks and dams on it already, as you know. And I went down on an inspection trip to look it over to see what the condition of them were. We had had trouble with one of the locks with expanding concrete. And we made prepared reports on the Tennessee Tombigbee. I remember somewhat presenting those reports to the Congress showing that it had a feasible economic ratio. And I really thought it was going to float. It has very good things about it. I guess it's going now, isn't it?

Q: Yes.

A: And it'll provide a very good channel for navigation if it's big enough. I don't know how wide it's going to be. They've widened it from the original plan as I remember.

Q: Considerably.

A: Yeah. Like all projects like that, there were "furs" and "aginers." But it took a long time for those who were in favor of it to win.

Another project with the same sort of contentions, and this is one that Overton Brooks was concerned with, was navigation up the Arkansas River to Tulsa and beyond. And I guess that's under way and almost finished.

Q: It's finished. The McClellan-Kerr Waterway.

A: Is that what they call it?

Q: Yes.

A: I used to know Senator [Robert S.] Kerr. What a guy he was. He wrote a book, you know. I think I have a copy of it home somewhere. He and I were great friends.

Q: Do you have any recollection of a story about how Senator Kerr got that waterway funded? I don't know whether you've heard about this, that he held up appropriations for an interstate highway until the congressman who wanted that highway built also expressed willingness to fund the McClellan-Kerr Waterway. Do you recall that?

A: He was a devious man when he wanted something done. I don't remember that particular thing, but I can imagine darn well it was done. We had already started when I was there building some of the peripheral dams, one of the big ones up there. I can't remember the name of that dam.

Q: Are there any other controversial projects you can think of you had to deal with while you were in the Chief's office?

A: Snake River.

Q: Could you tell me something about that?

A: Well, the Snake River was an enormous power project, but there were also salmon on it, just like there were on the Columbia, you know. And I don't think a solution was ever arrived at while I was there. Subsequently, some of the power companies were able to get authority to build dams on the Snake of lesser height, I believe. I used to visit that area quite a bit, and visit Chief Joseph when it was under construction. And, oh, I looked at the fish hatcheries and all those things that would impinge upon a project, such as the fish elevators and ladders.

Bill Whipple was District Engineer at Walla Walla during that time. We had a District then at Walla Walla, and Charlie Wagner was chief of construction on the Chief Joseph Dam, which they're expanding I understand.

Q: Yes. Well, the major problem on the Snake River,

then, was just the question of wildlife and fish?

A: The fish and maintaining the valley in its natural state.

Q: So it was an environmental problem?

A: Also, yes.

Q: Was it resolved while you were still in OCE?

A: I remember going to a hearing when a predecessor organization, Friends of the Earth--of course, both sides were represented at this hearing. I'm sure it was on the Snake River because of the pictures they bought. And the proponents spoke first, as usual. And they said, "The opponents of this project will tell you this, that, and thus and so, and these pictures will show that what they're going to tell you is not true. And not only that, the head man that's going to make the presentation has never been out of New York City in his life." And the fellow had to admit he'd never been out of New York City in his life. [laughter] But he had all the words. I forget who this hearing was before, but probably a congressional committee of some sort.

Q: Well, I guess maybe environmental problems first became an identifiable problem, at least an articulated one, for the Corps in the North Pacific Division because of the salmon fish problem.

A: Not only that but the wildlife. How the elk and the deer migrated, and how many were up there, and how they crossed the river, and all that sort of stuff. Yes, without having a name like "environmentalists," these people were in evidence, they had the purposes that they still have. And not as severe as the problem on that dam at Tennessee where we were going to protect the snail darters.

Q: Well, let's not take undue credit. That was the TVA, not the Corps.

A: Well, I see. Well, it's the same sort of thing, only they hadn't found out about the snail darters in those days.

Q: Right.

A: It wasn't an endangered species so much as it was protection of wildlife.

Q: Sure. Which of course you were mandated to do, to work at least with the other wildlife agencies.

In August 1951, you entered the National War College, and you've already mentioned that you really enjoyed your time there. Why were the courses there so valuable for you?

A: I think personally--first you've got to look at the makeup. The makeup was, there were a hundred students as I remember. And of that 100, about 10 were from the State Department; one from Commerce, at least one. Maybe, oh, the other military departments made up most of them. The Corps got two, the Infantry got three, or what have you. But to me, it's the kind of wide experience that an officer who's going to advance in the Army actually has to have.

I told you about the people who came to lecture us. We had Margaret Mead for instance give us two lectures. Well, that might sound a little bit peculiar, but anthropology is damn important in understanding why other nations don't feel and act like we do. And it's one of the main reasons why I feel that some of this silly stuff we do about imposing our way of life on other nations will never work, because they're not attuned to that sort of thing. For instance, Russia is a matriarchal sort of society whereas we're a macho sort of society here. I guess that's the wrong word. We had the Director of the FBI come up and talk to us. We had Allen Dulles come and talk to us. We had the great Israel diplomat.

Q: Ben Gurion?

A: No, not Ben Gurion. A big tall fellow. Very heavysset.

Q: Abba Eban?

A: Abba Eban. We had him come and talk to us. Other foreign people of equal prominence and people in the United States. And even a prime minister or two. And they were there under the strictest--we

will not say what they talked about or said--they leveled with us. And the reputation of the War College is such that they could be very free about what they said, even in the part of some of the U.S. people criticizing verbally members of Congress or other members of the department, or past Presidents, or what have you. We had lectures on world economics, and that's where I first learned that money is not money. It's a commodity like wheat and corn. Only the fact that we deal with dollars makes it any different than talking about wheat in bushels. Understanding that attitude in world economics to me is quite important.

After these lectures, we had very prominent professors at the War College. You'd divide the class up into three parts and the lecturer went to one and these others went to other groups. And you'd discuss what he said. We did two problems while we were there, which, to me, were not that important. Oh, I remember one I was concerned with was the defense of Europe or the invasion of Europe, I forget which. Anyhow, I felt we should invade through Greece rather than through France. We lost. I mean lost the argument. And the other one was to prepare a thesis on assigned subjects, and I had to prepare mine on nationalism in Latin America. I didn't even know what nationalism was in those days. I mean how it differed from love of nation, you know what I mean.

And these classes took place in the morning and every Monday you got a stack of reprints out of books you never would think of looking at. And you could read them or not read them. There were no tests of any kind. You were there because of dedication and interest in what was going on. As I say, it was the greatest educational experience I ever had. And the only thing that makes me feel badly is that it couldn't continue by having transcripts and stuff sent to us as postgraduates. I understand why they're not. The War College used to put out a book four times a year that had articles by people on various international projects. They don't do that any more for some reason, I don't know why. But very interesting things having to do with world situations and that sort of thing. But I enjoyed it to no end. In fact I don't know of any time in my career when I haven't

enjoyed what I was doing.

Q: That's nice to be able to say.

A: But I've been very lucky. I just happened to be available for Jimmy Stratton, who became chief of Civil Works after the war you know, to become District Engineer. I was on spot when Wheeler needed somebody to go to Alaska. I was on spot when Pick moved in and wanted me to be chief of Civil Works. I was on spot when the flood of '52 took place, and he wanted to replace the then Division Engineer, I was there ready to go. And the governor of the Panama Canal--when the time came, had sort of offended the Secretary of War, and Sturgis wanted me to go down there. I had been through the canal when I went to Nicaragua, it was the only time I'd ever seen it. And afterwards, instead of not being Chief hurting me, golly, it got me with Bob Moses, which was a five-year experience, and at that place I met Walt Disney. Wanted me in his organization. And how lucky can you be? Being on the proper spot at the proper time.

Q: Well, you're able to make use of those opportunities. I think that's important, too. Can we go back for a moment, General Potter, to when you were Assistant Chief of Engineers for Civil Works? You said you were in charge of some special projects. Could you elaborate on that a little bit?

A: Well, I've already described the St. Lawrence Seaway, but one of the most interesting was being the representative of the Chief's office in the negotiations with Canada on the diversion and use of waters at the Niagara Falls. Everybody has long realized the potential of the Niagara Falls for the generation of power, and both Canada and ourselves did have generating plants at the falls, but it was felt that in fact a large amount of water was available for additional generation. It was necessary, however, to always consider that Niagara Falls is a world-renowned spectacle. It's a great national asset and in the old days everybody used to go there for their honeymoon, as you well know. And it was essential that if more water was going to be used for generation of power, that the falls would still be adequately covered by water to have the same look that they've always had.

As you know, there are two falls. There's the Canadian and the American, and the Canadian are much larger and a much larger amount of water goes over the Canadian falls. The American falls have degraded over the centuries to where they aren't quite the spectacle of the Canadian falls. And there was a feeling since there had been appreciable rock falls at the American falls, that that falls might eventually become a rapids rather than a falls. So, engineering plans were developed and we discovered of course that--many years before that there had been extensive studies on the Niagara Falls on not only how they were formed, but what was going to happen to them. The rock at the top of the falls where the water goes over is a pretty hard rock, but the action of the water as it falls tends to erode softer strata that are under the top strata and this causes the top strata to fall down. So the engineering plans provided for a distribution of water over both falls by means of control structures above the falls that would send sufficient water over both falls, especially the American falls, so that both spectacles were maintained.

And the next thing that had to be done was the generation of a treaty with Canada. And I sat in, goodness knows, I don't know how many meetings with Canadian authorities, the minister of Canada, developing the treaty. And if you think it takes a long time to, for instance, to develop SALT II, I found in negotiations with Canada it's not as time-consuming but equally detailed. The position of an adverb and a comma and a semicolon and all of those things that are important in the English language, are things that are arguable for hours. And then while the language differences are not great, there are still some language differences and different meanings of words, et cetera. Fascinating but dull and boring--but you realize that those diplomats have this as a way of life, where we as engineers don't have it the same way. Nevertheless, you realize that both had to protect their country's interests.

So we finally arrived at an equitable and acceptable division of the waters, and the Canadians were all ready with another power plant to put in on their side. I don't know whether we've ever put another one in or not. I think we have. The one

we had was old and inefficient. But the plan was finally worked out, and it involved a great deal of interesting engineering. Normally when you are going to survey a river, you send people out in boats and they probe the river. You find out what the bottom looks like, and you can calculate the amount of water that's passing by. Well, you can't do that above the falls because you won't last long there. You'll go over the falls and become a newspaper article. So our surveying was done under a carefully contrived use of helicopters. A helicopter would go over, and the surveyors would be able to tell where the helicopter was, and they would be able to measure the depth of the cord and the weight that went down to the bottom, and find out what the bottom of the river looked like as far as its shape was concerned. Then knowing the speed of the water you could tell the quantity of the water that was going to each falls.

Colonel [Herman W.] Schull, who had been a roommate of mine at the military academy and subsequently was lieutenant governor of the Canal Zone when I went down there, was the District Engineer who devised this system of doing the work.

Q: Was the treaty signed while you were still there?

A: I think so, yes.

Q: Was that a necessary preliminary, do you think, to the St. Lawrence Seaway?

A: No. It had nothing to do with it.

Q: Nothing at all connected with that?

A: It was basically two things, seeing if we could get more power out of the falls, but at the same time protecting it as a national heritage and a world-wide fascination. In one of the old books having to do with the studies that had been made 50 years before, there was page after page of little blobs of color that showed what the color of the water over the falls would be if it was this thick, or that thick, or however thick. It would be interesting to look that up just for your own amusement.

And, of course, we could generate power at night at

a much greater volume than we could during the day-time. Because at night, all you see is the surface of the water.

Q: Well, these were private utility companies that were--

A: No, well, the Canadian government has an electrical authority of some sort. Who owns that power station on our side, I don't know, but I believe it is the New York Power Authority.

Q: Okay, returning to the period about 1951, you entered the National War College in 1951. Then in June of '52, you became the deputy commandant of the Industrial College of the Armed Forces, a position which you've already remarked you enjoyed immensely. About that time you became brigadier general?

A: During the time I was a student at the National War College.

Q: During--actually--before that time.

A: The stars were put on a blue serge suit in Paris. And I have a picture of that with General Bull putting them on.

Q: In July '52, you were appointed the Division Engineer of the Missouri River Division. The floods, the '52 floods, were only a few months before that time.

A: They were on their way down.

Q: Yes. Did that have anything to do with your getting that position, that they wanted somebody out there to take care of the floods?

A: I think Pick wanted somebody out there who he knew could--that he had experience with, really.

Q: Let me ask you some general questions dealing with the Pick-Sloan plan, really. Was Pick, to your knowledge, and I realize this goes back before your time at MRD, but was Pick's plan really Pick's?

A: Pick and Sloan.