

Nevada Test Site Oral History Project
University of Nevada, Las Vegas

Interview with
Fred Huckabee

January 7, 2005
Las Vegas, Nevada

Interview Conducted By
Joan Leavitt

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[00:00:00] Begin Track 2, Disc 1.

Joan Leavitt: *I'm here with Mr. Fred Huckabee and he's given me a printout of some of his career highlights which he's asked me to read for the record. He was with the U.S. Air Force, November 1947 to November 1951.*

Then from May '52 to February '62, he was a drill helper, a driller, and a rig supervisor for Great Western Drilling Company, Texas, New Mexico, Colorado, Utah, and Arizona. He drilled for natural gas and oil and some helium during that time.

And then from December 1974 until June 1976, he was a project manager, using the same drilling equipment as in Colorado, at Malta, Idaho in the Raft River Valley. He drilled three geothermal holes and two injection holes to depths of eight to nine thousand feet for a pilot plant for geothermal electric power.

From May 1974 to November 1974, he was a project manager in Colorado in the Pieance Basin, Rio Blanco, which consisted of taking a government-owned drill rig and support equipment from the NTS [Nevada Test Site] and drilling two holes seven thousand feet deep and performing massive hydrofracts in the gas-bearing zones at sixty-five hundred feet.

Previous jobs were with Reynolds Electrical and Engineering Company in Nevada at the test site from February 1962 to February 1977, where he was a driller and rig supervisor until October 1967, and a project manager in drilling until February 1977.

He was a committee chairman for numerous studies, designs, and activities such as Russian housing complex in Area 25 and Mercury, and new contract approach for M&O Contractor, closing of Area 12 camp, et cetera.

He was a member and operations expert for the Coordinating Schedule Group meetings in Washington, D.C. with the Russians for the Junction, Hoya, and Greenwater nuclear tests at the Nevada Test Site.

Those were also verification tests?

Fred Huckabee: Yes, that was on the verification tests, and each one of those, we'd go to Washington and meet with the Russians and make a protocol of what we were going to do and everything.

OK, because I saw some pictures of Junction, but these were the other names.

Right.

He's been Chief Technological Operations for the Coordinating Schedule Group meeting with the Russians for the Batyr Guriya Nuclear test at Semipalatinsk Test Site in Moscow, July to August 1991.

He was a deputy team leader at the Soviet Semipalatinsk Test Site in the drilling of a CORTEX hole to twenty-two hundred feet with a drill rig from the U.S. and other support equipment transported from the U.S. on Air Force C-5A aircraft in conjunction with the Joint Verification Experiment for a Russian nuclear test, April to June 1988.

He was a member of the delegation in defining and negotiating the Joint Verification Experiment and the preparation of a protocol for the Threshold Test Ban Treaty in Geneva, Switzerland, February to March 1988 and July to August in 1989 and October in 1988.

Member of the U.S. twenty-man delegation to visit and receive presentation from the Soviets on their nuclear testing program and operation in Kazakhstan at their Semipalatinsk Test Site, and their visit to the Nevada Test Site in January of 1988.

You were the project engineer, Crater Exploration Project at Enewetak Atoll in the [Republic of the] Marshall Islands in the South Pacific from the planning through the onsite oversight from fall 1984 to spring 1985.

He was a member of Safety Task Force appointed from Washington, evaluating operations of the Strategic Petroleum Reserve Office [SPRO], Kenner, Louisiana, from November to December of 1978, after safety investigation of petroleum fire involving casualties and injuries.

[00:05:00] *He was also accepted to federal government ERDA [Energy Research and Development Agency], February 14, 1977, as a general engineer in drilling, and promoted to Supervisory General Engineer, Chief Test Construction Branch, September 26, 1977 to the present.*

That is a really full, concise summary. That's wonderful. Hard to know where to begin.

Fred Huckabee: Then I've got my retirement letter from Nick [Aquilina] there if you want to just read it. You might not want to put it in there. That's from Nick.

Let me go ahead and read that.

Dear Huck,

It gives me a great deal of pleasure to represent your many friends and associates throughout the DOE [Department of Energy] Nevada Field Office in wishing you well in your retirement from the federal service. Your vast experience, professionalism, and can-do attitude will certainly be missed.

It has come to my attention that your twenty years of federal service have included four years with the U.S. Air Force and over sixteen years with the Energy Research and Development Administration [Agency], ERDA, and the Department of Energy at the Nevada Test Site. Your

career at the NTS began in 1962 with Reynolds Electrical and Engineering Company, Incorporated as a drilling superintendent. Those were the days when Texas know-how and ingenuity were the way to accomplish the task at hand. In February 1977 you switched horses as you joined ERDA at the NTS in Mercury. Your vast contributions to the Nevada mission have been global and without equal.

In addition to being recognized as a drilling, mining, and construction expert on the NTS, your valuable contributions to the programs of the NTS are extensive. During the early stages of your NTS career, you served with distinction as Project Manager for Drilling Operations for the Rio Blanco Gas Stimulation Program in Colorado, the Geothermal Pilot Plant Program at Malta, Idaho, and the Crater Exploration Project at Enewetak Atoll in the Marshall Islands.

Probably your most noteworthy contributions were to the Joint Verification Experiment, where you served as a member of the twenty-man U.S. delegation to review with the Soviets the U.S. and Soviet nuclear test programs to develop protocols for the joint U.S. Kearsarge test and Soviet Shagan test. You also served as deputy team leader for the drilling of a CORRTEx hole at the Soviet test site in Kazakhstan, USSR. Your participation in the preparation of the protocol for the Threshold Test Ban Treaty in Geneva, Switzerland and as Chief of the Technical Operations for the Coordinating Schedule Group meeting for the planned Russia Batyr Guriya test contributed to the successful U.S.-Soviet Union protocol negotiations and resulted in global recognition of your vast experience and capabilities.

Your humor, knowledge, and outstanding contribution to the Nevada mission will leave an irreplaceable void. I am confident that you and Emma Jo] will enjoy your retirement with all the enthusiasm that you have shown in your career. We extend our best wishes to both of you for happiness and success in the future.

Oh, that's beautiful. He's very eloquent.

Oh yes, he is.

That's wonderful. No wonder you treasure this. And I'm glad we have it in the record. That is something to be proud of. That gives a really wonderful overview of some of the things that you have contributed to the Nevada Test Site.

Right. I just wanted to get that in there and then you'll understand the questions you want to ask or whatever from there.

Yeah. I do. Maybe if we could just kind of—because if—I can come back for a second interview, it just all depends on how far we get. We have approximately about an hour and fifteen minutes on one tape, and so my plan is to kind of take a break after that and we'll just see how we're doing.

Sounds good.

And so as far as we get, I really want you to be able to contribute everything you want to contribute. Let's just start with your family background, with your mother's family background and your father's family background.

Well, I was born in Brownfield, Texas, right south of Lubbock, Texas. Do you know where Lubbock, Texas is at?

I do.

And was raised there. Went to school and high school at Brownfield. And then I went in the military service from there. And went to San Antone [Antonio] to go through basic training with [00:10:00] the Air Force, and then to Lowry Field, Colorado for administrative courses, and then to Hamilton Field, California—

Let's look again really quick and see. What year was this that—?

This was 1947.

So it was right after the war [World War II], then.

Right, right after the war. So 1947. After I left Lowry Field, Colorado, I went to Hamilton Air Force Base in California and got on a ship there. It went to the mainlands of Alaska and let off some troops, and then some more troops got on, and then we went on to Adak, Alaska. And I stayed there for fourteen months in Adak, Alaska. And came back to the United States to Fort Lawton in Seattle, Washington and turned in my cold weather gear and picked up my summer stuff and was sent to Carswell Air Force Base in Dallas, Texas. And then moved to Ellington Air Force Base in Houston, Texas, and got out of the service at Ellington Field. I worked my way in the orderly room, if you know what an orderly room is, of the Air Force or for a branch of the Air Force—

Now “orderly,” I associate that usually with “hospital.” Does that have anything to do with a hospital?

No, no, that wasn't a hospital. The orderly room was where the branch of military personnel was in this branch, and I can't remember what the name of it was. But I worked myself around service records of the personnel that was there and the time reports up to the chief clerk—

Was it kind of an administration job, is that—?

Yes, it was in administration. Then my final six months there, I was the first sergeant of my unit. And then I was discharged and moved back to Brownfield and went to work for Magnolia Petroleum Corporation at Kermit, Texas, outside of Brownfield, about eighty miles from Brownfield. And I stayed there about seven months and I said I don't like the administration portion. I need to get out in the weather, you know, so—

So you wanted to be in the field, then.

Yeah, so I wanted to be in the field.

You discovered that's what you liked.

So I said I'll just try my work at working in the oil fields. So I went to work on drill rigs as a roughneck and eventually worked myself up into driller, and then from driller to a rig superintendent in charge of the drill rig, the moving and drilling of the holes and everything, the maintenance of the drill rig.

Now this was oil, then.

It was oil, drilling for oil. And so I was in west Texas and New Mexico drilling in various places, and then moved to Farmington, New Mexico. This was with Great Western Drilling Company. And moved to Farmington, New Mexico, was transferred from our Midland office in Midland, Texas to the Farmington, New Mexico office. And drilled gas *and* oil wells out of the Farmington area in Colorado and New Mexico and Arizona and Utah. And that went through the process till 1962. In 1952 is when I went to work, when I left the administration portion and went into the field. And 1962, we kept hearing about the Nevada Test Site. And there was a couple of guys I knew there. And the test site was wanting experienced drilling people and rigs and equipment; one of these guys had a couple of rigs he was going to send to the Nevada Test Site and lease to the government when underground testing started getting underway. And so—

[00:15:00] *They didn't really drill when they were dealing with atmospheric testing.*

No, there was one or two atmospheric shots after I got there in '62, but after that it was all underground testing and drilling operations.

And they were really having to pull a brand new technology in order to do that.

Oh, nobody with the government or any of the contractors that was there at the time being knew nothing of drilling operations. And it was an all out effort for the government to start underground testing and testing as quick as possible.

Because this was right after the Cuban missile crisis.

That's right, and the Russians were progressing and everything, and the United States wanted to get their part in, you know, and—

And they were absolutely prohibited from doing atmospheric.

Oh yes.

So they not only had to start and gear up, but they had to gear up in a way that was very, very different.

Oh yeah, they knew nothing of that, and the contractors that was there, like Reynolds Electric [REECo] and Holmes and Narver and various contractors there, they knew nothing of drilling operations.

And your experience had mainly been field experience.

Oh yes. Yes. And so from Farmington, well, I quit Great Western Drilling Company and come in with two of those drill rigs that were sent into the test site. And equipment was coming into the test site by the gross, of the government leasing rigs. They didn't buy them, they just leased them from various drilling companies to start the operations. And equipment was coming in from here and there; and we didn't have the proper supplies because they couldn't get them ordered quick enough, and crews were coming in and hiring out to REECo, which that's what I done when I come in. I had to go through Reynolds Electric to get to the test site.

Now was the drilling also—I mean because the geology was hard, was that something they had to have a learning curve on, too?

Oh, yeah, you mean even for the personnel coming in?

Right, because drilling—

Oh yeah, the geology was different than the areas that they'd been in.

And drilling for oil would be different from drilling for testing.

Oh yeah. See, when you drill for oil, you probably finish a hole with an eight-and-three-quarter-inch-diameter bit at five, six, or seven thousand feet, you know.

So it's smaller. OK, so it's a smaller one.

Well, you'll start a little bit larger, say a twenty-six-inch, so you can set surface pipe through the water zones and everything, and then finalize the hole at about eight-and-three-quarters or maybe seven-and-seven-eighths inches down in the oil pay, as you would call it. And so when we come into the test site, well, it was really unfamiliar geology-wise of what we were getting into and what they were wanting. And the first thing they wanted to do was drill thirty-six-inch holes.

Well, in the oil field, we didn't drill—sometimes we might set surface pipe at a hundred feet or something with a thirty-six-inch bit, but they wanted to go to two thousand, three thousand feet, thirty-six-inch.

Now this was a scientist who said this is what we have to do?

Oh yes, this was Los Alamos [National Laboratory] and [Lawrence] Livermore [National Laboratory] saying what they would like to have so they could get their instrumentation in the holes and everything. And so we went through a period of time for about two years of trying to advance in the technology of what they were wanting, and dealing with bit manufacturers and oil field equipment suppliers and everything.

Now who would make the suggestions on the change of bits that had to be done in order to get those holes? Was that you guys, then?

Oh yeah, that was us and the engineering group and the whole drilling department.

So it sounds like scientists say, This is the idea and you guys figure out the practical problems for solving this, then.

Yes, that's right.

So you were on the "let's make it work" end of things.

Right. And so we went through—started drilling thirty-six-inch holes and drilling with mud like we did in the oil field, a mixture of mud to circulate the cuttings out of the hole. And [there] was so much material coming out, we was having problems with sand and [00:20:00] everything settling and sticking our tools in the hole and everything. And so we come up with a different method of using air foam, it was a soap mixture; and we'd blow air with the soap mixture and blow it back out of the hole and it would be soapy, bringing the material out of the hole.

Lubrication?

Yes, for the lubrication, and bringing the cuttings out of the hole that you were cutting up, as you were drilling. And then we advanced on into that in later years. The laboratory kept wanting more experiments and larger holes and everything, so we started from thirty-six to forty-eight to fifty-two to sixty-four to seventy-two to eighty-six to ninety-six to a hundred-and-twenty to a hundred-and-forty-four-inch holes, through that series of time from 1962 until 19, say, '75 or something like that. So we were changing equipment *all* the time—our drill rigs for supporting the weight and the larger diameter of holes that we were drilling. It took more weight to drill those holes to put the weight on the bits, to drill the formation because of the larger diameters, so we had to buy drilling equipment to accept that. We went from a, say, a four-to-five-hundred-thousand-pound derrick that holds weights, holds the weight of the equipment, up to a million-and-a-half and two-million-pounds drill rigs.

That is mind-boggling to even think about that much weight.

Yeah, and we had to enlarge the working area around where the men were working and to accept those large-diameter bits and mandrills and everything that went in the hole. We had to remodify those “substructures,” we called them. So there was a lot of engineering work during those years to get to drilling a hundred-and-twenty-inch holes I would say that—

Well, I notice you have all of your fingers.

Yeah, I’ve got all of my fingers. I didn’t lose any of my fingers.

That says a lot, doesn’t it, as far as safety is concerned.

Yeah, it sure does, because we was very safety-minded with REECo and bought all of the safety equipment we could buy to do the work without getting people hurt. And eventually, I mean every once in a while somebody would get hurt but I guess that’s normal in any heavy equipment operations or anything, but very, very, very few. And so I’ve got a film. Have you seen *The Evolution of Drilling*?

No, I haven’t.

You haven’t seen *The Evolution of Drilling*?

No, I haven’t.

The government’s got that. I’ve got one if you want to watch it a minute.

I’d like to watch that.

And just watch it and maybe you can get a set of the film to go—can you use film with your book and everything?

I can. I can.

OK. Why don’t we shut off a minute and then I’ll try to put that on.

[00:23:51] End Track 2, Disc 1.

[00:00:00] Begin Track 3, Disc 1.

[At this point, they begin looking at photographs.]

Yeah, I wanted to show you this here. This is what the Russians—I don't know if you've seen that.

Oh yes, I've seen something like this at—oh no, not exactly this.

OK, this is when the—when I went to Russia I was there for fourteen days; then when I come back, well, then *their* twenty-man delegation come to *our* test site, and we showed *them* how we tested and everything. [See Photo 1]

Now was this is January, then?

This was in January.

Now is this Las Vegas?

This is out at the mess hall. You know where the mess hall area in Mercury—? [See Photo 2]

The steak area.

The Steakhouse? Yeah. And there's [James] Magruder there. See Magruder?

Yes.

I'm in there somewhere. There I am.

Oh, there you are.

And the Russians are down here and the Americans are up here. It's the two twenty-man delegations together.

Now were you one of the first of the twenty to go over to the familiarization trip to Semipalatinsk?

That was the twenty-man delegation.

Will you tell me what you remember about that?

Well, look at that, and then I'll tell you.

Oh, OK.

And this is [Mikhail] Gorbachev and [Ronald] Reagan in Moscow. [See Photo 3]

Now is this when they signed it?

Yeah, that's when they signed—

Troy [Wade] said he was in a picture similar—now there is Reagan right there, isn't he?

Yeah.

Oh, that's nice.

Now here's the—there I am. There's Magruder. Walt [Walter P.] Wolff. There's Troy. [See Photo 4]

Now that's Paul Robinson, isn't it, right there?

Yeah. Paul was my—when I went to Geneva, he was—what do you call it, the ambassador?

Yeah.

Yes, he was the ambassador.

Ambassador of nuclear test talks.

Right. This is the twenty-man delegation plus our interpreters. [See Photo 5]

So these were the Americans, then.

Right, that's the Americans. Now we took them to see Siegfried and Roy.

Yes. Nick talked about that.

This is the Russians and the Americans up on stage.

And I notice—this was one of the people who talked about you because there were some nice—you were with the group.

Yes.

You were with the main group. That's you right there, isn't it?

Yes, that's me. That's me.

But there was another picture with just you with, I think, Troy and Nick.

Yeah, it's in here. Now this was just—we gave this to the Russians. This was just showing them the Nevada Test Site. [Going through pictures] That's where you entered the test site. [See Photo 6]

The entrance.

And this one was just a picture from Mercury. One of the drill rigs. [See Photo 7]

Now this is all part of the stuff that you showed them, right?

Oh Yes. We gave them this. It was to take back with them. We gave each one individually one of these.

This is the ground zero and this is the trailer park back up here and all the cables that was going to go down hole. Then they wanted a picture in front of a hundred-and-twenty-inch bit.

[See Photo 8]

Yeah, they'd never seen anything like that before, had they?

Oh no. And that's inside where the device went, and they wanted to stand on the inside. That's the bottom portion of when we lower—that the device set in. [See Photo 9]

Now is that Viktor Mikhailov?

That's Mikhailov. Yeah.

I've heard a lot of stories about him, too.

He's a nice guy. Nice guy.

Did you have any experiences with him?

Oh yeah. When he come over, he brought me a pair of the tall boots.

The Russian boots?

The Russian boots, where they do the goose-step and everything. And he gave me a pair of them and he said, These are good boots but, he said, don't leave them under your bed because they smell, he said.

Oh, that's funny.

Then this is the device going down hole. [See Photo 10]

OK. Yeah. OK.

And then this is a picture of the craters. [See Photo 11]

Yeah, the craters.

This is of our wild horses up there. And this is—we shut a test down one time. Right before we fired it, we seen on our TV from the CP [control point], we seen those fox in a little— [See Photo 12]

Really?

Yeah, and so we shut the test down when it was supposed to go and sent some men out there to pick those fox up and move them away from the test site, up from the test.

Oh, that's wonderful..

So we gave them that, and this is the little fox that was— [See Photo 13]

Oh, that's nice to know that you saved them.

And this was in the Steakhouse. And it was a mural. Have you been in the Steakhouse? [See Photo 14]

Yeah, but it was closed, so we didn't get to go inside.

[00:05:00] Well, these are some paintings that's up on the wall. We told the Russians, said, This is the way it was when we first went to the test site, this is the way we

drilled and everything. And we said, This is the way we started drilling. This is the way we got there, we told them.

With your donkey and with a mule. Oh, how funny.

Yeah, that's the way we started it.

Now all these murals, then, are in the Steakhouse?

In the Steakhouse, right.

Oh, OK.

Then here's Siegfried and Roy up on the stage with the Russians and Americans. [See Photo 15]

Did you feel like the Russians were quite impressed with that show?

When the show was going on, well, I was sitting with a group of them with an interpreter with me. I said, What do you think about it? And they said, Well, it's not as good as some of ours.

Of course. What else would they say?

Oh yeah. It's not as good as some of ours. But they enjoyed it. And this is probably one you've seen. [See Photo 16]

Yeah, that's the one.

Of Siegfried and Roy when we was up on the stage. That's Magruder and Troy, Nick, myself.

You're in with quite a group there, aren't you?

Oh yes.

They're the guys that make it happen.

And let's see, which one's that one? I thought I had one of the—wasn't there one with the little white lion?

I think that was at the beginning.

Oh, was it? OK.

I think that was at the very beginning we saw that. There they are, right there.

Yeah. [See Photo 17]

These are beautiful.

Oh yeah.

The Siegfried and Roy pictures are just beautiful. Jeff Gordon had an album that had this cover over at the [Atomic Testing] museum, and that's where I first learned about the JVE [Joint Verification Experiment].

Oh, it is?

It is, because he had that cover and he also had some news clippings and things and some pictures, you know, similar to that, not exactly like that but a lot of that same kind of a thing, so that's how I got started with that—

When they come over to visit us, well, we gave them a presentation out there for two or three days, but at night, well, we took them to the Siegfried and Roy. On the way back there were a Smith Food King over here on the 95 highway here at Jones. I don't know if you remember where that was.

Yeah.

They've closed it now. So we pulled in there on the bus, taking them back to the test site after the show, and so we went on inside and boy, they scattered and went all through there. A bunch of them went to the Timex watches and everything, the General did, and two or three more, and a bunch more, they're just walking around. And the majority of them, they bought baby pacifiers.

Oh really? How strange!

Yeah, nearly every one of them bought baby pacifiers.

I wonder why.

Well, they don't have them over there. They didn't have baby pacifiers. And here come the interpreter. One of the interpreters was Gorbachev's personal interpreter. And when the twenty-man delegation from there come—

Farafonov? Michael Farafonov?

Yeah. And so Gorbachev assigned him to the nuclear portion for this so he could get more up on the technical portion of nuclear testing.

So Farafonov or Gorbachev could get up on it?

So Gorbachev could. And Farafonov would know more on the language and what for the interpretation and everything. So *anyway*, when we stopped over at Smiths Food King, well, Farafonov, he went down and here he come back up. He had a three-pound can of Folgers coffee. And I said, What are you doing with that coffee? He said, My boss told me to bring it home to him.

Oh. Gorbachev wanted Folgers. Oh, that's funny.

So we get back to the test site and they had went—you know in Russia, if you want milk you go to a milk store. If you want cheese, you go to a cheese store. And you stand in line to get into those. If you want clothes, you go to a clothes store. If you want eggs, you go to an egg store. It's not like our grocery stores.

Where everything's there in one place.

When everything's in one place. So when we got back to the test site from that night after we left the show and stopped by Smiths Food King, they said that was a set-up. They said that's not like that in the United States everywhere.

Do you know why they said that? You don't have any idea why they said that.

The reason they said it is because that's not the way they operate in Russia, because each one of their stores is separate, the cheese store, the milk store. And so we said no, no, that's

[00:10:00] the way we do business here. And they said, Nah, I think it was a set-up, you know the interpreter was saying, They're saying it was a set-up. So [we] gave the interpreter a telephone book and said, Here's a listing of all the grocery stores in Las Vegas and ya'll pick any one you want to pick and we'll take you back to town and don't let us know till we get nearly in town which one you picked and then we'll go to that place. And so we took them to one and they understood it wasn't a set-up, that that's the way we operated.

Well, that was one of the interesting cultural differences between Americans and Russians that you learned the first night they were, the first week they were here, then, isn't it?

Oh yeah. Yes.

You know, that appearances are not always the reality.

That's right. But anything that we done or anything, well, they done it a little bit better. No matter what it was, well, they do that a little bit better.

Well, you think they would've ever admitted that Americans did things better?

No.

Well, don't you think that's why the drilling was a bitter pill for them to swallow?

Oh yeah.

Because this was something absolutely Americans did better and there was no proof to the contrary.

That's right. But when we went on the twenty-man delegation over to *there*, well, we stayed in Moscow for two days or three days. We went to the Bolshoi, the opera, the dancing and everything. And we sat up where their tsars and everything, right in the front, up on the third floor, it was a circle with about three or four decks to that Bolshoi. And so we had little opera

glasses that they gave us, and we were looking around at the crowd and everybody in their seats was looking back up there at us.

They were looking at the Americans. So you were a novelty for them, too.

Oh yeah. And halfway between the Bolshoi, well, they shut down and everybody goes out to the front—it's still inside but to the front of the house, and they had a table set up for us to go eat and everything. It was all china and pretty. All their stuff is nice. Nice. But that's the way they do [it] at the Bolshoi. When they shut down halfway, all of the people go out to the front and they promenade in a circle, all grab arms, and walk, to relax, I guess, between the show and everything.

Oh. And they also have a meal, it sounds like.

Well, they did for us. I'm not sure that they did for them. I don't think they did for them. They escorted us over into another little anteroom and—

And the intermission is very long, I gather.

Oh yeah. It was about forty-five minutes or an hour. And they all promenade in a circle, everybody that's in the show and everything. And that was real nice. It was real nice. And after it was over, we all stood up and gave an ovation, and we done that six or seven times and they'd come back out on the stage and bow to us and everything.

Then we went to their circus, and it was very nice. It was very nice. And then they took us into the Kremlin and took us to the Armory of way back in the eighteenth century on up, everything they'd gathered up and everything in their Armory.

Oh, quite a museum, then.

Oh, it was nice. They had a liberty bell outside on the grounds inside the Kremlin yards. And it's a liberty bell, got a crack on it just like ours.

Oh, isn't that curious.

It is curious, and I don't know if they was trying to say—I don't know if they've got it there because they was the first one to say they had the cracked liberty bell and we—

Who borrowed it from whom?

Yeah, who borrowed it from who?

We might borrow nuclear secrets from you, but you got the liberty bell from us.

Yeah. But there was one up there, a monstrous liberty bell sitting there. And we went all through the inside where their Congress and everything meets and everything and it was beautiful. And where—what was the—Terrible the—

Ivan the Terrible?

Ivan the Terrible, where he was when he was kid, we went back into where he lived back in there inside the Kremlin.

Some of the historical things that they're proud of.

Yeah. It was a pretty place. The Kremlin is pretty.

So what'd you think of Semipalatinsk?

[00:15:00] Of the test site or the city? The city was over a million-and-a-half people, nearly two million people in the city.

Semipalatinsk was that large?

Yeah, the city was, now, not the test site.

Oh. I'm surprised. I'm surprised it was that large.

Yeah. When we first went over there, we took one C-5A aircraft over and brought the logging equipment in. And stayed at the Irtysh Hotel.

Now was that in like February or March that you went over? Because the familiarization visit was in January.

Yeah. In January, when I went over in January, then I come back over here. And then the Russians visited us, and I set up all of the forward areas to show them our equipment, trucks, cranes, forklifts, and all of our heavy equipment; and I had it all set up where we could go from one place to another, carrying them around, showing them—

So that they could not go to places they weren't supposed to go to.

Oh, yeah, we didn't give them classified information. And took them by the logging area and showed them our logging tools and—

Did you have a cultural shock personally at giving these tours?

I sure did.

Did it make you feel, "what am I doing?"

That's right, that's it, little old boy from Brownfield, Texas, what am I doing here? That's the way I felt when I went to Enewetak, out there with the Marshallese. We got a ship from Singapore and drill crew from Houston, a captain for the ship that we leased out of Singapore from Norway; the drill crew was from the Philippines, and put all of that together, they moved the ship to Kwajelein. You know where Kwajelein is out in the South Pacific? And brought the drilling equipment in from Houston and put it on that ship and brought the drill crew in from the Philippines. And then moved out to Enewetak from Kwajelein after we had the ship all set up and everything to do the drilling operations out there. And after we got the ship out there, the main island of Enewetak, they had two seventeen-foot Boston whaler boats with two forty-five-horsepower Evinrude engines on it. And the Marshallese was the one that was driving the boat as they would take us out to the ship. And it was about fourteen miles out to the ship where we had

it set. And those waves were ten foot high, and we'd go down and then waves would be on both side of us, and then we'd come up on one and we'd look down at the two swells below. I was sitting in there and I said, How in the world did I get out here from Brownfield, Texas?

It was a long ways from Texas, wasn't it?

Yeah.

That's probably how you felt sometimes in the Soviet Union, too, wasn't it?

Yeah, I sure did. I sure did.

How did I get myself here?

That's right.

It is an interesting journey that brought you there, isn't it?

Oh, oh yeah.

But they needed Texas technology at the test site.

Right.

And you were able to bring that here.

That's right.

And then they needed Nevada Test Site technology at Semipalatinsk.

That's right.

And you were there. Now how early on were you aware that the Russians were going to have a problem with drilling? Some of the requirements?

Well, now how do you mean? Oh, when we was in Geneva—

Would this be '87, with Paul Robinson?

Well, it was eighty—

Eighty-eight is January.

Eighty-eight. Yeah, '88. When we were putting the protocols in the verification program together over there, then it come up in the negotiations that we needed a straight hole. Or we was going to drill a satellite hole, that's what it was. We were negotiating for them to drill a satellite hole beside the main hole. And we said it had to be straight and plumb. And they said they didn't have the know-how to make a straight and plumb hole. And that's where it was negotiated that we would probably take a drill rig—they asked us would we go over and drill the [00:20:00] hole so we could get a straight and plumb hole besides their hole they had already drilled for the device. And so that's when it was that we found out.

But first of all, they had to go drill it. They had to use their equipment to see.

Well, what they done is they had drilled the emplacement hole for the device—and let me kind of get this straight now. Oh, yes, and they had drilled the hole, and then over in Geneva we was negotiating and they said they didn't have the expertise to drill a straight and plumb hole to be sure that it was straight and plumb. And so it was decided at that time that we would take a drill rig over there. Then when it was decided that we would go over with a drill rig, then we seen some activity on our satellites and everything. There was some activity going on around that location where the test was going to be. And they were drilling a satellite hole after we had talked about it.

Oh, so the General went ahead and did it, even though Geneva had—really!

Yeah, they were drilling a satellite hole—

You know, I was trying to figure how this went together.

—and we didn't know that for sure. We just seen some activity, what was going on, you know.

And so they was drilling a satellite hole. So it was decided we'd go over there, and the first thing

we took was logging equipment, and held off of the drill rig and everything. And when we got over there, Larry and I and an interpreter, a woman interpreter, went over.

Larry Ruud?

No. Larry Neese and I. Larry and I and a woman interpreter went over for an advance party before anybody went over there, to look at the holes, to see where we were going to stay, see what we were going to log and everything.

And what did you find in the hole? Can you just describe what you had—?

OK, when we got there, we seen that this satellite hole had been drilled. And the main hole was there for the emplacement. And so it was undecided whether we was going to send a drill rig then. The United States kind of backed off.

That's interesting because you were in Geneva where you knew that the Geneva consensus—

That we were going to go over there and drill a hole.

Yes, and that the hole was being drilled almost without permission.

Well, it wasn't permission. They can do anything they want to. But it had to be straight and plumb, so many meters from ground zero. And so they figured well, we can do that.

You think maybe the General said I'll show them?

Well, General [Arkadii D.] Il'enko, probably at the test site, Il'enko probably made the decision on the test site, go out there and drill a hole. We can drill a straight hole.

Yes, "We can do this."

And so we seen that activity around that, going on, and couldn't figure out why equipment and stuff was moving in there. So we got over there, and the satellite hole had been drilled, and the emplacement hole was already drilled, and so we brought—the only thing that was OK'd was to bring our logging equipment over—so we took our logging equipment over and run logs in the

ground zero *and* the satellite hole, and the satellite hole was not straight and plumb and so many meters away from the emplacement hole. So they—

Did you have to tell General Il'enko that?

Oh yeah.

How did he react, do you remember?

No. He was a military guy. He was probably mad but he didn't let on to that. They cemented that hole back. But we was there, oh, heck, fifteen, sixteen days, eighteen days prior to it being OK'd that we was going to bring a drill rig in there, after it was set up in Geneva that's what we was going to do.

Did you know that Guy Allen and General Il'enko had been talking about maybe American

[00:25:00] *equipment or American know-how could straighten the hole back up again? Did you know that they were talking that at all?*

No. I didn't know that. It would've been hard for them to do that.

I think that was what the conclusion was.

Oh, they couldn't have done that. I probably did know about that and I probably had some say-so that it couldn't be done to straighten that hole up.

Yeah, that just is not possible. It has to start over again.

But anyway, we was there logging for about eighteen days or something or other, and then it was OK to bring the drill rig in. Let's see, what—?

Did you stay there while the drill rig and equipment was being transported?

Oh, oh yeah. Yeah. Larry and—I mean, who's the—?

Guy Allen?

No, the engineer with REECo. What was—?

Let's see—

Larry Ruud. Larry Ruud and group—see, Larry [Neese] and I was over there, and we was over there with the logging crew that I took over with me over there, and we had been logging. And so in the meantime Larry Ruud and the test site operation was gathering all the equipment up to get to Indian Springs to get on the C-5A aircraft after it was finalized that the drill crew would come over and that the drill rig would come over. And we had already been doing that before we left to go over there anyway, had it all figured out what was going to go and everything. And they was boxing it up and getting it down to Indian Springs. And so after we got some results from the logs and everything and that that hole would not work, then they cemented that hole back and it was OK'd for the drill rig to come over. And so the logging crew stayed there during the operation of the drilling operation because they had to do some logging as we were drilling also. And so—

Now when they started drilling, they ran into a few problems, didn't they? The geology was hard and they weren't able to drill at the rate that they needed to.

Well, yeah, I was going to start. When it was finalized that the drill rig could come over, then Larry and I and that interpreter went to the city of Semipalatinsk, which was about sixty miles away from the test site, and stayed at the Irtysh Hotel. And then each day a C-5 aircraft would come in. Now before I left Moscow, I had to tell them things about how much fuel the C-5A would take and all of that; set it up that a Russian navigator would have to meet each C-5A aircraft as it was coming in at Helsinki [Finland] to get on the C-5A aircraft to be with the American navigator so when they come in they wouldn't be shot down. And so they landed. So when the first aircraft come over, we brought one drill crew with the equipment on that C-5A. And they stopped in Helsinki and put on a Russian navigator and then flew into Semipalatinsk

Airport. And boy, the Russians was all over everywhere. First time they had seen an American plane, you know.

At least they didn't shoot them down.

No, they didn't shoot us down. So it was supposed to be there at nine o'clock that morning, and about five minutes till nine, well, we seen it coming in. It was a monster, that C-5A. That's the largest aircraft the Air Force has got. And it landed and come up in there. During the meantime, Larry and I had set up with their "Teamster," we'll say, the one that has all the trucks and equipment to haul equipment and stuff. We'd tell them what we needed for the first—that it was going to be on the first load of the C-5A that come in, to be there that morning so we could load it up on his trucks and they could take it back to the test site. And he'd say, No problem. No problem. The Russian would. He couldn't talk American but he knew "no problem," you know.

He learned to say that.

[00:30:00] So the interpreter would tell him, so he'd say no problem. And the equipment that we was expecting, U.S.-type, it wasn't that type of equipment. It was enough to get by to get the equipment up there, but it wasn't big long floats to put drill pipe and stuff on. It was more Army-type trucks.

You're talking the Russian equipment.

The Russian. Yeah, it was more—

So you weren't able to use their equipment at all?

Oh yeah, we—

Oh, you did try to use their equipment.

Well, we had to have something to haul it, because we had all of the stuff inside the C-5A and they had to transport it for us. But it was more GI-type trucks and stuff, not big old long floats to

put drill pipe and everything on and everything. And then the next thing was when we tied down our loads on trucks and everything, we used chains to go over it, to fasten it down and everything, and what we call a boomer. Do you know what a boomer is?

No. What's a boomer?

It's a deal that hooks on the chain and then it's got a lever on it and you pull it and it tightens up the chain so. They didn't have any of that. The way *they* would tie *their* loads down was a piece of wire about as big as your finger and throw it across the top—

Hmmm. And that's heavy—

—and then twist the wire to tighten the wire up.

Oh, gosh. Did you lose any of your—?

No, we didn't lose it, but after the first aircraft come in, well, we got back in touch with the test site and told them to throw a bunch of chains and bunch of boomers on. And those Russians thought that was all right.

They really liked that. Well, here's some more American technology that could be shared.

Yeah, they really liked that because they used wires to tie down their stuff, and that was awful.

Now I understand the roads were also quite bumpy and really awful.

Oh yes, well, they wasn't bumpy, they was holey. They had holes in them. You had to go pretty slow or you just run into a big chuckhole on their main highways. But anyway, for five mornings, a C-5A come in each morning, one C-5A aircraft, and then we'd go back to Irtysh Hotel. And the pilots and everything that come in would stay overnight, and the one that was there with the first aircraft would go back with the one they brought in, so they'd have a little relief time before they had to fly again. And there was a cop, a Russian cop, that every morning when we got up at the Irtysh Hotel, well, they'd put us in a bus, a Russian bus, and he was in a

blue-and-white patrol car. And the highway there in Semipalatinsk, it was probably four or five lanes each way, say nine lines of—that wide, it was that wide.

They're wide. I'm surprised.

And we'd leave the Irtysh Hotel, and he'd be in front of it, and we'd start down the highway going towards the airport, and he'd be on his microphone broadcasting, everybody out of the [way]—in Russian, Everybody out of the way, the Americans are coming! And the cars would pull over, and then he was coming right down the middle of that lane, not over on the side, right down the middle.

So you got a police escort.

He'd do that every morning. So the second morning, he pulled up there and the bus pulled up. Boy, he took off down that tarmac for about a quarter of a mile, just as fast as that patrol car would go, went down to the end, throwed on the brakes, and turned it around about three or four times. Then he *zipped* back a quarter of a mile right up in front of us and threw on his brakes and turned it around two or three times. And that Teamster, the one who was in charge of the trucking and everything, he told that police officer, Take Mr. Huckabee. So finally he said OK and they said, Come on. So I got in there, and we went up the tarmac and made about three passes—

Oh, did you like him doing that?

Yeah. But he was a racer before he was a patrolman for the Russians, and he was a race car driver.

But he missed it.

Yeah, he did. So that was a lot of fun. And so that Teamster—that one that told me no problem—the second aircraft that come in, well, here come the crews. You know we brought a crew. Each

time a plane would come in, we'd bring a drill crew in. And here [00:35:00] come the crew down the steps off that C-5A, and one of the kids had a T-shirt on that said "No problem" on it. And he got down at the bottom of the steps. You know Larry and I was there meeting them as they was coming off.

And I said, I want that T-shirt.

And he said, You want this T-shirt?

And I said, Yeah, I'll pay ever what you want for it, but I want that T-shirt.

Did it say in American, in English?

It was in American.

In English it said "no problem."

"No problem." And so that night, well, at the Irtysh Hotel, he gave it to me and I washed it up and cleaned it up and everything, and the next morning, well, I presented it there at the tarmac to that Teamster that said "no problem." I said, I got a present for you. And he opened that up and he thought that was all right.

Now gifts were such a—

Oh, they believed in gifts. They believed in giving little tokens of anything.

Yes, and you picked up on that real quick.

Oh yes, you bet, you bet.

Well, I'm going to go ahead and change—

[00:36:06] End Track 3, Disc 1.

[00:00:00] Begin Track 2, Disc 2.

We are back again, and Mr. Huckabee just showed me a beautiful commemoration of the experience. It's kind of a commemoration that says in Russian "In memory of the visit." This was

given to him as part of the twenty-man delegation, and in the center it's also written in Russian and it says "Semipalatinsk Test Range, USSR, 1988." And on the back there's a nuclear cloud as part of the picture there. So that was something—we'll just get that in the record there, too.

OK now, you just finished talking about the T-shirt and "no problem" and this little exchange of gifts. Would you like to continue on with—?

Well, I think I've told you about everything that really happened there. We was there five days at the Irtysh Hotel, bringing that equipment in; every day a C-5A aircraft come in, and each time a new drill crew come in with the plane. Then we got to the test site and started setting up the drill rig. And so all of our equipment we had stored in boxes, like our equipment we needed for the drill rig and everything. And first, well, we took these large boxes and tipped them over on their side and we'd put our storage in there like on the inside where it wouldn't get wet if it snowed or rained or whatever. And so General Il'enko flew out in his helicopter to the drill site. And so I showed him the drill rig. Larry and I walked him around and showed him the drill rig and everything after we'd set up.

And he said, Is there anything you need?

And I said, Yeah, we need some kind of something to store this equipment that we've got, this small stuff that we need to keep it from getting wet with the atmosphere and everything.

He said, I can fix that up.

And so the next morning there was a group of military personnel come out—they had set up a tent on that location, and it was an army military tent and it was probably twenty-five-foot wide and thirty foot long or something like that. *Big* tent. They had set it up where we could move all of that stuff inside the tent, on the ground and everything. And he asked did we really like that. He said, I can fix that up. Did you like that?

Well, it sounds like he was really trying to be accommodating and—

Oh, he was. When we first got over there, when we went in over on the twenty-man delegation, they showed us where they was going to set us up for housing out in the forward area, a two-story-type GI barracks or something equivalent to a military barracks. And we negotiated that we didn't want security all around —us—over in Geneva—that we didn't feel that we needed to be secured. And so when we get over there and go out to where the housing was, well, they had a security guard going into the complex with a fence around it with us enclosed around a fence, had a security where we couldn't go out or come in without passing through their security. And then they said they had set up—I don't know if Larry [Neese] showed you those or not, but I've got them somewhere, in the house here somewhere—it was big old tanks that they had made housing out of. They'd pushed these tanks together, and they were four-man housing in each one of them tanks; then another one where they could feed us out of a little mess hall that they'd pushed these big old round tanks together and everything. And they had it set up about two miles from the drill rig. They'd set up a complex out there that we [00:05:00] didn't even know anything about or anything. And they said, We would like for you all to move out here. You'll be closer to the drill rig and everything. And I said, No, we negotiated in Geneva we was going to stay—which was about ten miles to the drill rig or twelve miles where we would go to stay and negotiated for that. We don't want this complex that you've built up for us out here.

You would really remind them. It was good that you were connected to Geneva that way.

Oh, oh yes.

Because you knew exactly what the agreements were and you made them live up to it.

Oh yeah. And I said, You've got security, you've got us a fence around our housing facility, and you've got security set up so we have to check through

security if we go out. We can't go out. I don't know if you're not going to let us out or what.

Now were you one of the ones in Geneva who said these are the kinds of things we have to have in order to be comfortable there? I mean did they get that feedback from you to get that in the agreement?

Well, there were different people with different agendas in Geneva, out of the twenty-man delegation. Some of them was administrative, some of them was drilling, some of them was technical for the laboratories' use, that we set up in groups, negotiating with these Russians. And some of the things that were probably negotiated I didn't hear, and some of the things we negotiated probably they didn't hear; but we'd put it all together in the protocol and so we would discuss those items and everything. They'd all go in. But within our group, I think that was in the administrative end. And when we went over with the twenty-man delegation, we were shown where we were going to stay, and we all knew that. And within—

You knew this one departed from that.

Oh yes. I might not have said, No, this is where we're going to stay, or Yes, we—but it was all put into the protocol. And we reviewed those every day. Every day we met with the Russians that were in Geneva. One time we'd meet at their complex and one time we'd meet at the U.S. complex, and talk on different subjects; one of them might be the drilling agenda or the drilling capabilities, another one might be the administrative end of it, and there would be different groups that went to those as we'd meet each day.

Now how long did you participate in this protocol group here?

I don't know. I've got it on that piece of paper. I think. Somewhere.

Because it sounds like all the protocols had to come along with the joint verification.

Oh, it did. Oh yeah, it did. That's where we put it all together.

But the Threshold [Test] Ban Treaty had been in effect for fourteen years.

But we were still working on that. We were working on the Thresh [Threshold Test] Ban *and* the protocols for the verification program at the same time we was over there, talking about all of those discussions was going on. Let me see if I can find this, where I was over in—OK, my stay over there was February to March in '88 and July through August in '89 and October of 1988, on my portion of the negotiations for the protocols and everything.

But anyway, I called Geneva after we made that first visit out to the test site, out at the locations that day; I called back and talked to—I think I talked to Magruder. He was in Geneva at the time. And I said, Listen, they've got a security fence around our complex and there's security guards there to get in and out. And they've set up another housing facility about two miles from the drill rig with a bunch of tanks made into four-man Quonset-type huts for us to live in. And it doesn't look very good to me. And so he met with some of the Russians that was there. Some of them was still negotiating there, after I was over in Russia.

Now was Jim [Magruder] in Geneva at the time?

In Geneva. He was in Geneva when I talked to him.

Was he in Geneva most of the time?

[00:10:00] No, no. Backwards and forth. All the time, there was various bunches of us would go over at different times. Now the ambassador was there all the time. But there would be different people that would come in for different sections of the protocol we were putting together and everything.

Well, I just know that Chuck McWilliam shouldered a lot of responsibility at the test site in Jim's absence.

Oh, yeah. Well, when I left to go over there, then Vern Witherill was the director at NTSO, and he come in probably three weeks after I went over there the second time, and then Chuck, he shouldered some of that, and he was still at NTSO. He wasn't downtown; he was still at the Nevada Test Site Support Office. And so he became the acting director. And in the meantime, while I was over there, the Kearsarge Russians come over to the United States, so he was negotiating with some of the things that was going on to set up Kearsarge here with the Russians. And then when I come back after sixty-something days out there, when I come back Kearsarge hadn't gone on; then I started working on the Kearsarge bunch, which they had already started and everything when I got back active in the Kearsarge deal. And Chuck, he was negotiating with the Russians here on the Kearsarge.

There were a lot of fronts here, weren't there?

Oh yeah.

The Nevada Test Site and—

There was a bunch of things going on.

There were.

And when we set up the drill rig, well, we had a flag—Nick got awful mad about that. Have you heard about that?

Please tell me. I've heard several people talk about that flag.

Well, OK, we took a flag over with us, and after we set the drill rig up, well, we was going to put a flag up on top of our derrick, up on the top of the derrick so it'd fly all the time. And so we asked the Russians could we put our U.S. flag up on it? Being as we're in Russian territory, can we put the U.S. flag up? They said, Yeah, it'd be all right we can put a Russian flag up with it. And so we talked about it a little bit over there and we said, OK, we'll put a U.S. flag up and we'll put a Russian flag up. Both of them will fly up

on top of the drill rig. So we had a big outing that day. There was probably sixty Russians out there on the location and all of our drill crews and all the U.S. personnel that was over there at the time. And we shut the drill rig down from its operation, and a Russian carried the flag up the ladder, up to the top of the derrick, and set the Russian flag up, and then the derrick man off of our U.S. crew carried the American flag up and set it in place. And [we] took a bunch of pictures of it and had a bunch of photography that day.

I've seen some of those pictures.

Oh, OK. And so after the Kearsarge got started and everything, the Russians said they would like to fly the Russian flag on the Nevada Test Site.

Oh boy!

And it upset Nick completely. I mean he was upset about it, you know. He went ahead and went along with it, but not because he wanted to do it. He was really upset over it.

No, this was in-the-face Cold Warrior, wasn't it?

Oh yeah. Oh yeah.

The real true test.

So the American flag was put up out here on Kearsarge and so was the Russian flag. And the reason he had to do that was because we'd already done it over there. But he was *upset* about that.

Did it take him a long time to get over that?

Well, he finally got over it. He finally got over it. But I think he's still upset about it.

How funny!

But it was an experience out there. Made a lot of good friends, a lot of good friends.

Well, Patrick Rowe talked about that experience and he talked about the ceremony, the sense of ceremony, that there was a good feeling with that.

Oh yeah.

At least on your side of things.

Right.

[00:15:00] *You know, that we are doing this together and that we are agreeing. So do you know how Nick found out that he had to do this or—?*

Well, he had heard that we put up an American flag and everything, and he was probably just waiting for the suggestion to turn up out here. But I don't know if he was upset because *we* done it or not. He probably thought that was a good deal. That means we got to put the American flag up. But when he was approached here, he didn't like that one bit. He didn't like that one bit. But I think he knew that we had put the American flag up.

And I set up the eating process and everything in the barracks that we was in and everything. The Russians fixed breakfast and dinner and lunches for us. And when we first got there, well, it was all Russian stuff—they had goats' milk, made buttermilk out of goats' milk, buttermilk? And most of the guys wouldn't drink that buttermilk. Boy, I loved that buttermilk. *You liked it.*

Oh yeah.

You had tasted it before.

I'd get some of theirs, you know and drink theirs when they'd put it on the table. And we took, oh hell, eight or ten boxes of Hershey's, different candy and stuff, and we'd give it to the Russians there that worked in the mess hall and everything, the gals that served us lunches. *Now they would bring food out to the work site, wouldn't they?*

Oh yeah.

And I noticed that the dishes they used looked like they were really—I saw some pictures.

They were china.

They were china!

They were china, and the tablecloths for the tables and everything were kind of velvety. What do you call it? Velvet tablecloths? It was all first class.

So it was probably surprising to you that they served you so elegantly.

Oh yes.

Especially on a work site. You probably thought, well, what are we doing here?

Yes, right. But out to the worksite they'd bring these real greasy sausages-looking things, you know, and boy, they was greasy and stuff. Some of the guys just couldn't hardly eat it, couldn't hardly, but hell, I ate everything that they gave me. I never would argue about any of it. And their Pepsis, Pepsi-Colas, it was in Russian and everything but it was Pepsi-Cola.

You know, you wonder who manufactures Russian Pepsi-Cola.

Pepsi-Cola. Pepsi-Cola does. I think Pepsi-Cola does. I think they do.

Isn't that interesting. I didn't even know we had a trade agreement with the Soviets.

When we went over with the twenty-man delegation and had our meetings in the main camp of their test site, that's what they'd set in front of us. When we were negotiating with each other with the interpreters and everything, after we arrived on their test site—what we was going to do that day and the next day or whatever—they'd set Pepsi-Colas out for everybody for drinking Pepsi-Cola.

Oh, that's amazing.

When the twenty-man delegation—when we went over and they gave us that little deal, this little deal and everything—we had four or five dinners and they took us to a movie about Russia back in the early years of 1900 and how they lived and everything. And then at night, where we'd eat dinner and everything, well, there was a nice bar set up and everything inside this room, and we'd all have drinks, you know. So after we come back to the United States, well, at our DOE office down there, well, it was becoming more and more that we was going to send personnel over to Russia to drill the holes and do a test over there, and so people from Washington kept coming in giving briefings and everything. And so the auditorium there at the DOE building, it was packed full, and they'd brought a bunch of medical people down from Washington to talk to us, to everybody, not just the ones that was going to Russia but the whole DOE complex was in the auditorium, you know. And so they said, For one thing, don't do this and don't do that and don't do this and everything, and for one thing, *don't* drink their vodka. [They] said, They make vodka out of potatoes over there and make their vodka out of [00:20:00] it and you'll go blind sometimes. And when they said that, I'd already been over there with the twenty-man delegation and I bet I drank a ton of their vodka there at the bar.

Haven't gone blind yet.

And I said, I think I'm going blind, with the whole audience there, and there's two guys now, every time I see them they say, The first thing we think of is you jumping up and saying, "I think I'm going blind." But that was a lot of fun. Now the Russians, when you have a drink, when they have a toast or something, it's a glass about half that size [indicating size] and they'll fill that up with vodka, and then they'll pour your drink. They don't sip like Americans do. When they pick it up, they drink the whole thing for a toast, then fill it back up for the next toast. And so we'd have to drink all of ours at the same time.

Did you ever start out with water?

Oh yeah. I tried to stay away from it as much as possible but sometimes I had to drink it where there were toasts, and you had to drink every bit of it.

Now did Guy Allen have some problems since he was a nondrinker?

I don't know if he did or not. I don't know if he did or not. Now Vern Witherill, well, he drank a little, so he got along good with them over there. But Guy, I'm not sure whether he had problems or not with it. Probably did. He'd just say no, you know.

Now I understand that you guys wanted more vegetables. You wanted some fresh vegetables.

Oh, yeah. I was going to tell you about that. After the first planeload, then we called back and said, Hey, why don't you send us some lettuce and some tomatoes and some oranges and some different vegetables. Because we hadn't had a salad or anything. They didn't fix us a salad. And so they brought that stuff in on one of the C-5A aircraft. Well, here come a load of stuff that they had throwed on there with the rest of the equipment, and we took it back out there. And so we took it into their cook room and everything and told them that we'd like a salad for our next meal. *With* our next meal. And so what they done was they cooked that lettuce like cabbage. And boy, we said, No, no, that's not the way you make a salad. So we sent one of the women interpreters we had with us, sent them back in the back, and she showed them how to make a salad. And so the next meal, well, they brought out the salad, you know, and it had the onions and the tomatoes and the lettuce and everything together, and the vinegar, and boy, we all clapped, you know. And until that lettuce run out, we had a salad *breakfast, lunch, and dinner.*

Every meal. Well, we aim to please.

Yeah.

Now I think it might have been from Vern, I read a telemesssage and he said now they were kind of concerned that the Russian women cooks might misinterpret that you guys weren't satisfied with the amount or quantity. Did you sense that sensitivity? I mean were you aware that that might, you know?

Oh no, no, because if you wanted more, all you had to do was tell them and they'd go get more if you wanted it. But it was a pretty good plate of food that they put down for you.

Yeah, and I understand that it was several courses.

Oh yeah.

It wasn't just the simple couple of sandwiches and—

Oh yes. It was different. It was different food. A lot of tongue.

Beef tongue? Is that what that was?

Oh goodness, I don't know if it was horse or beef or what. Might've been horses, I don't know.

And some of those guys, they just couldn't eat that tongue. But we had a *lot* of tongue. A *lot* of tongue. Then we took a bunch of Tabasco sauce over there and we'd keep it in the mess hall.

The Tabasco bottles, you know?

Well, yeah, I know New Orleans and some of the South are that way but you know I didn't think Westerners and Las Vegas—

Yes, we took a lot of bottles of Tabasco over there.

Because that drowns some of the flavor, doesn't it?

Oh yeah. But I liked their buttermilk. I liked that buttermilk. Then they had Pepsis, you know, just Pepsis galore.

Well, I have to stop—

[00:25:00] End Track 2, Disc 2. [End of interview]