KB: This is Karen Brewster and today is June 26th, 2001, and I'm here with Al George at his house in Fairbanks, Alaska, and we're doing an interview for the Byrd Research Center's Oral History Project on Polar Scientists and related people. And I want to thank you, Al, for taking the time to talk with me. We'll just get started with a little bit of background on you, so people know who you are and where you come from. We may just start with where you were born and when.

AG: I was born in Spokane, Washington, on November 5th of 1923. And we lived in Spokane for about 4 years, and then moved to Portland, Oregon, where I spent most of my growing up days. I went to Franklin High School in Portland, and then to Oregon State at Corvallis where I was drafted into World War II and spent three years in the military - actually, in the artillery in the military. I guess I should really wind that around and say the artillery of the Army in the military because there is artillery in the Navy and other branches. I got interested in winter recreation and was aware of a project that was going to be built on the lower slopes of Mt. Hood as a winter recreation project. And so I had been working summers to produce income to go to school on for the US Forest Service, and met the individual that was involved in developing that project. And all of a sudden, it kind of blew up in that the Korean War blocked the civilian
use of construction steel. And so, the project wouldn't be able to proceed because they couldn't get construction materials. And so, I was staying close to the project by working for the Forest Service. I ended up spending 11 seasons with the Forest Service, mainly in the fire control and office management section of the Forest Service on the Mt. Hood National Zig-Zag Ranger District outside of Portland.

And while working there, a friend of mine that had been an acquaintance in college, stopped by and was amazed to find out what I was doing and what my interests were. This was getting close to the start of the IGY, and the Geophysical Institute was looking for an administrator to assist in running their projects, in that they didn't want to waste any more time than necessary of a scientist doing government paperwork. And so, I decided it was worth putting an application in for, which I did, and received by return mail, a suggestion that we meet in the Mount [Numo] Hotel in Portland, and Christian T. Elvey, the Director of the Geophysical Institute, the gentleman for which the Elvey Building is named for on campus, and we sat in a hotel room and swapped lies for about 4 hours, and he indicated that he would let me know what his decision was. And several weeks later, I got a job offer, which I took, and started the process of moving to Alaska.

I had a wife and one child? two? . . . three by that time, I guess. And, the story I was given by Doc Elvey was that he wanted somebody who had worked for the government. He wanted somebody that had had some involvement in science. I had 36 credit hours of chemistry. And somebody that could put together an adequate paper work because he didn't want the Geophysical Institute to copy what the federal government was doing with all the paper work and not getting any science done. And so, I never did find out whether there was another applicant for the job or whether I was the only one.

KB: So, how did you find out about the job?
AG: This friend, Glen Stanley, was employed as a project leader on one of the projects for the Geophysical Institute, and he knew about this job and he knew where I was working. He didn't know what I was doing. I was the Headquarters Assistant and dispatcher for the Zig-Zag Ranger District, and I had been involved with fire control, working my way up through the ranks, starting out as a crew leader on a ten-man crew and going on from there. And so, whether they had advertised as their . . . things were done a lot more lax in those days compared to the present where we have to advertise all over the place, etc., etc. People couldn't understand that we moved into a house in College that we rented from - what was the guy's name? - McCall. He was a geologist up on campus. And he was the one that led the rescue of the climber that broke his thigh and laid up on the mountain in a tent for 7 days as the rescue attempt was put together and led by McCall, who went in and got him out.

KB: Is that who McCall Glacier is named after?

AG: Yes, as a matter of fact.

KB: OK.

AG: We had lived in Forest Service stations where we were . . . oh, one of 8 or 10 families, and in the case of the Bear Spring Station, we were 4 miles from another highway camp and probably 70-80 miles from the closest hospital. And in moving to College, Alaska, that was more people than we'd lived around all of the time that we had been married.

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KB: And what year was this?
AG: 1956, and I went to work on July 1 of ’56, and worked three days and was given a holiday for the 4th of July.

KB: You said you went to school at Oregon State in Corvallis, and then you were drafted. Did you graduate from Oregon State?

AG: When I came back out of the military, I went back to Oregon State and graduated from Oregon State with a degree in business and a minor in chemistry. I had been interested in becoming a chemical engineer until the university proved to me that I didn't know anything about mathematics. And by this time, I had enough chemistry in that I could take a chemistry minor and major in business. When I look at what the business student has to do today compared to what my requirements for graduation were, it's a different game all together.

KB: And so what years were you in the military? You said three years, but which years?

AG: ’43 through ’46. That sounds right. 36 months.

KB: And when did you graduate from OSU?

AG: In June of 1950.

KB: So, when you were in the Army, were you over in Europe or in Asia?

AG: Well, it's a weird thing. When I was at Oregon State, not yet drafted, it was a requirement that I had to take ROTC, and the ROTC course that I was assigned as a chem major was artillery. And the Army was just in the process of switching from the French 75 over to the 105 Howitzer, and so I had had two semesters of work on the 105 Howitzer and got drafted. I was sent to Fort Sill, Oklahoma, the artillery...
training ground for the nation, and they found out that I knew more about the artillery piece than the
sergeants in the training section because the sergeants had been in for 15, 18, 20 years on the French 75 and
just a couple of weeks before I showed up at Fort Sill, they had been given the new 105s to train on. So,
they were petrified that they had this new gun they knew nothing about. Some of them were lucky and had
a chance to fire them. So, I get down there and all of a sudden, I'm training all these line sergeants. They
decided, then, to keep me for training purposes and so as soon as I finished basic, I was shoved over into a
training battalion and about that time, I had a ruptured appendix and they mopped that out of me and I got a
30 days sick leave, went home, came back and they decided that they would ship me off to a line division.
So, I was attached to the 498 Field Artillery of the 13th Armored Division, which had been put together in
California, and jokingly we were referred to as Wogan's Playboys, Wogan being the Commanding General
of the Division.

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Once again, I was jumped up in grade because I was a college-type and had this background on
the Howitzer. And so, finally, they decided that they were going to ship the Division overseas and I was
given a choice. We had too many non-coms, and by that time, I was a sergeant and I was given a choice. I
could go overseas as a sergeant, but I would have to transfer either to the infantry or the engineers, or I
could take a break in grade and become a PFC again which I chose because I didn't see going overseas with
a bunch of strangers as a smart thing to do. We were shipped out of New York harbor and spent 6 months
in Europe and then were sent back to the United States with instructions to report to California. What was
the fort? . . . Fort Longpoke, and start training for going in to Japan on the Tokyo planes with our Armored
Division. We'd been there several months. We were just starting to really get organized in our training and
the atomic bomb was discharged and shortly thereafter, Japan folded and the shipment of people home was
started. And you were allowed to go home on a grade scale of how many months you had in the service,
how many months you had in combat, and . . . what else? Something else. And so, our Division got in late
enough that we weren't the first ones discharged. But, they sent me up to . . . what's the camp outside of Frisco?

KB: *There's the Presidio, which is in San Francisco.*

AG: No, this was up the bay. I was put in charge of a locator section with 36 employees and as you move from location to location in the military, they have a locator card, which of course, by this time, had become an IBM card. So, if a troop ship came in with 5,000 people aboard, there would be 5,000 cards handed to you, hopefully in alphabetical order, and you went through the filing system. We were so low on the totem pole, we didn't have the IBM equipment. We just had the cards, so we had to file all these things by hand. And that was an interesting time.

Camp Stoneman was what I was trying to come up with. It was a rather rough town. It had the steel mill on one side, a refinery on another side and a military camp on one side and a cannery on one side. The MPs walked in threes, not one or not two, but threes and half of my crew for filing were WACS. And they were continually getting themselves in trouble with all these horny GIs coming back from the South Pacific and getting dumped in Frisco harbor and told to hang tough, we're going to send you home.

KB: *I can't think of where that would be. I've never heard of Camp Stoneman.*

AG: I can just almost come up with the town name. Pittsburgh. Right.

KB: *Oh, Pittsburgh, OK. I know where it is. I mean, I never heard of Camp Stoneman, but I know where Pittsburgh, California, is. And it makes sense.*
AG: It was an interesting thing because they come in and plunk you down a box of cards and there would be 30 cards in that box and what is it? Well, you're trying to figure out what's going on here and all of a sudden you wake up to the fact, this is a tugboat that has come in from Honolulu and has a regular crew of maybe 18 or 20. But, they're carrying a few extras just to get them home. And so, I'd be chasing around the docks trying to find these lost souls to make sure that we had cards for everybody because it gets a little messy if you're trying to contact somebody. We kept a 24 hour phone alert because the American Red Cross, in their emergency circuits, touched base with us to make sure that they had the latest home address of the individual involved.

KB: It sounds like you were a distribution center for people.

AG: Except that we had nothing to do with them. All we're doing is keeping track off on the side, counting noses and whatnot. And so, yeah . . . they offered me a tech sergeant rating if I would sign over for another 6 months and keep this locator section going. And I declined. Which was kind of interesting in a sense, because they'd cut daily orders and they didn't have Xerox equipment then, everything was on mimeograph. And, I was already cut for that day's . . . boosted from buck sergeant to staff sergeant. No, it was higher than staff. It was a tech sergeant. And so the orders came out that day and here it reads down for two or three pages, and then there's this blank area in the middle that's been outed with ink and that was me being reduced from tech sergeant back to buck sergeant.

(250)

KB: So, going back a little bit, you mentioned growing up in Portland. Could you talk a little bit about what your childhood was like and your parents and your family?

AG: I was born into a house of two school teachers. And, in addition to teaching school, my father also coached athletics. And this was during the Depression and he finally got disgusted with the way they
wanted to pay him and whatnot and he quit. In the meantime, he had graduated with a degree at Pullman . . . Washington State. And the degree was in agriculture because his father wanted him to be an ag person. And he didn't want to. He had always wanted to go to law school. And so in the process of teaching school, he was going to law school in the evenings and put himself through the Northwestern School of Law in Portland there, which has now, as I understand it, become [Lymits] University's Law School.

My mother was a school teacher and what else? That's about all, I can think of there. One classic problem was that when they moved to Portland, they had put all their personal things in a big steamer trunk and somebody stole the trunk from the railroad depot. And they finally found it and my mother was asked to come down and identify the thing and these two big bully detectives take her by the arm and she didn't know where this is and here's all these rough types and my mother is scared to death. And what the outcome of this was that all of the family photographs up to that time had been junked because they were afraid that it would identify and be used as evidence in court. And so the people that stole it had been caught, but they didn't get anything out of it.

KB: And then, did you have brothers and sisters?

AG: No, I'm an only child. Spoiled rotten.

KB: So, we left off before that in 1956, you came to the Geophysical Institute.

AG: Right. What the Institute was looking for was somebody to assist in the paperwork dealing with the funding agencies and if I can get through and not lose my train of thought, an individual wants to get an advanced degree. In the process of this, he's probably going to have to do some kind of work that will produce something in the neighborhood of a thesis. It could be a treatise, it depends on whose word games you want to play with. The person, then, has to live in the process and he needs some kind of a salary, and
so there are all kinds of ways that this is funded from grants from private industry and private individuals to government agencies. How do the government agencies handle this? Well, they like to do a lot of their work in-house, and then they like to do other work out of the agency, which we always jokingly referred to as out-house research.

And the method that the National Science Foundation, which was the principal funding agency at the time that I got involved in this, would send you a letter. Well, first of all, you made an application and you wrote out what you wanted to do and why and what the significance of this was and go on from there. And the agency, in the process of accepting your grant and saying they're going to fund it, offers you so much to do the work and say that you've applied for $75,000 and they decide that that's living a little high on the hog. We'll offer you $60,000. And so, they are sending you a letter that says, "We are hereby granting you a grant of $60,000, and a check will be forthcoming to you." And two weeks to the day, a check would come in the mail. And what was the check for? Well, it's for the whole year's work. So, we had this grad student and he has received this, only he can't receive it in his own name. He has to receive it, first of all, preferably involved with an senior scientist - a professor of some kind. And secondly, he has to have a business office to handle the paperwork for this. And so, what the National Science Foundation essentially was doing is they were issuing you a one year grant and paying you the money all up front. Well, suppose such as at the Geophysical Institute, they had 10 grad students and they all get grants from this and they only need a 12th of this each month for salary and then maybe you had some equipment that they are acknowledging you can go ahead and buy, so that can be purchased.

But, this extra money that isn't being used today, two months from now we need to pay your salary again and again, and again. In the meantime, when you start adding these things up, there's a sizable chunk of money laying there and what's a good business person do? You go down to the bank and get a CD for however many days or weeks or months that you need, and you break this out and you're earning some interest. And somebody in the National Science Foundation hadn't figured all this out.
And so, for several years, we're doing quite well interest-wise because on some of these grants, there was a requirement that you had to have 5% participation money to go along with this. And where do you get this? Sometimes the legislature was very generous and gave us some money. Sometimes the legislature was so p.o.-ed at the university that there wasn't a chance we were going to get anything. And so, where does this money come from? Well, you're quick, scrambling, trying to find out. And then finally somebody woke up to the fact that hey, these places are making money off of us. And there is an agency called the Western Association of College and University Business Officers (WACUBO), which has participants from, let's say the Mississippi on west because this was the western branch of this. And I woke up to the fact that this organization existed and applied for membership and got it. And so I go down here and I wake up to the fact that these guys are the comptrollers and business officers for Cal Tech, Stanford, all the people up and down the coast, etc. And what is a 10th of a percent of a problem that they claim this is our money versus their money, etc., to us is so small that it's probably less than $100 and we'd just forget it. But, as we grew, we began to wake up to the fact that hey, these people are experiencing the problems that we're going to be coming up with in whatever growth factor we get involved with.

(400)

And so, it turned out that being able to associate with, lean on, ask questions of these what I used to refer to as the Big Boys in the Game, when you're at Stanford and how many dollars worth of research are you doing? And it's being funded from where and by whom, etc.? You can learn a lot, just by picking up the dregs around the . . . And the other problem that we were experiencing at the time . . . each agency that we got funds from wanted to audit their own money. And it was nothing uncommon for us to have four or five auditors on campus at one time, auditing our books, one set of books. And it's kind of ridiculous to see a couple of these high-powered federal auditors standing out in the hall yelling at each other because this guy's tying up the books that this guy wants so that he can get this done and go home. He doesn't like it up here. And it was very difficult to keep a straight face when all of this was going on. But, that's part of the game.
The other problem is, they don't necessarily approve of what we've done. Well, you've got to realize that this is all after the fact. This is money that we spent last year and they're just getting around to auditing it. So, they're not going to accept this. Well, where in the hell are we going to get the money to accept it if we don't? So, our job then, and where I spent most of my time, was convincing these people that the expenditure was a legitimate expenditure. And I have to agree with them. Some of them are idiot type things. We had one gentleman who was a professor. He was getting grant money and he was very difficult to control expenditure-wise because he didn't appreciate the importance of how these expenditures were handled.

One of the things that he needed was a typewriter to type this language on because he was a linguistics prof and he was developing a written form of this language and the people were dying off and there were only a few left and he wanted to get it done in a hurry. And so, he had spent a lot of time talking with the gals that were steno in the language departments in these various large universities finding out where do you put this key, which finger do you hit it with, which is this and that and how did the keyboards in the regular typewriter get developed in the first place? And so, he finally, after . . . oh, it must have been a year and a half of chasing around with this besides all of his other work and teaching classes, he up and orders a typewriter built and where does he put it? On his travel account. And unfortunately, that went through and I didn't notice it at the time until an auditor caught it and here I am with egg on my face, trying to figure out how do I talk this auditor out of this? And then when we got into it, we found out that he'd bring up two five gallon cans of stove oil and you're trying to figure out what are you doing with stove oil? Well, it turned out that this old gal who was one of the last that spoke the language well, didn't have any oil and her house was cold and she wasn't going to sit around talking to this silly professor when she was cold. And so, he was buying her some oil. As far as I was concerned, it was a very legitimate expenditure, but to look at it on paper, it's ridiculous. He went through the same thing with chewing gum. She liked a certain flavor of chewing gum. There were lots of times when he spent hours with her sitting in jail. Why?
she was always getting picked up for being drunk and she was pulling a week of time in jail. And he liked it because she couldn't get away. She had to sit there and answer his questions.

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But, you can see that the time that is spent or could end up being spent by a researcher on documenting these things, going back and finding out if it's wrong. If it is really so glaring, putting through the paperwork to clean up that section of the books because it just can't go through this way, is not something that the scientist needs to necessarily get himself mixed up in. And if you get your foot in the door, you can get to where you have them appreciating the fact that you're - I used to kid them about it - you're keeping them out of jail. But, that was only part of the operation. The title that I had was Executive Officer and I guess you have to be involved with the US Navy to appreciate what an Exec Officer does. And Chris Elvey, my boss, was a . . . not retired. His previous employment for 10 or 12 years had been with the US Navy at China Lake, California, the rocket range there. And by training, he was a mechanical engineer and an astronomer. And he spent a large part of his time in Washington, DC, hustling funds. The background of the Institute, where it came from - the building was actually built at the expense of the federal government, plus 5 or 6 houses in back of the Institute that were part of the grant. This was along about 1946, someplace in there. That's just a guess.

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KB: Yeah, it sounds about right.

(End of Tape 1 - Side A)
AG: At the time that I came aboard, there was Leif Auvren, who was from Norway, C. Gordon Little, from UK, Chris Elvey was the Director from the United States, Sidney Chapman and his wife, Catherine, from the UK, and he was the retired professor from the Sedalian Chair of Natural Science at Oxford. And as the British said when they got the opportunity, Sidney is in America making an absolute ass of the British retirement system. He would spend a third of the year with us, a third of the year at Boulder, Colorado, at the High Altitude Observatory, and a third of his time back in Britain. And he was the President, Chairman, whatever you want to call it, of the International Geophysical Year program and we were extremely fortunate to get him to put that much time in in our shop. He was a fascinating individual in that he walked two or three miles a day...no, I take that back. He swam a mile a day, he walked ten miles once a week. His wife typed all of his papers until her arthritis was getting so bad that it looked like she was going to have to quit writing for him. And then her typewriter went on the fritz and we had to take it into town for repairs. In the meantime, we loaned her an electric typewriter from one of the gals and this was so easy on her hands that she wouldn't give the typewriter back. She knew she swung enough weight to get away with this. Yeah, Catherine was a delightful person.

Another professor, going down that list, was Gian Carlo Rumi, an Italian who had been at Cornell and was a new Ph.D. electrical engineer, and Vic Hessler, who had been the head of the electrical engineering department at where? Wisconsin? Illinois? At Illinois. There was a William Abbott, who was a Greek and I don't know what university he was from. We had Wes Britten from the University of Colorado getting his Ph.D. He was a whiz mathematician that was attempting to develop a formula for containing an atomic explosion. And we had an electrical engineer running our machine shop. We had an electronic shop and we had a machine shop and we had a data reduction center and we had a library. The library was run by a Swiss gal who spoke five languages.

KB: Do you remember her name?
AG: Margaret Weiss. Delightful young lady.

KB: *Do you remember the names of the people who ran the electronics and machine shops and data center?*

AG: The machine shop was Ray Roof, who is the . . . he's dead now. He was the husband to Brina Kessel Roof. The electronics shop. I go completely blank on what that name was. We had a . . . little incidents happen that stick in your head. We had a grad student from Canada and he was taking a math course from a head of the physics department, a fellow by the name of Alfred Bork, who went from here to Reed College. I don't know whether he's still at Reed or not. He was the last I knew. But, anyway, he was driving this poor grad student up the wall and so, it got bad enough that we sent him up to the medical people to have a look at him and they decided that the best thing he could have happen to him was to get off campus. Break the . . . And so, we get him off campus, like where? And one of his senior professors on his committee was Gian Carol Rumi and Rumi was, let's say, a little odd. And I felt that the administration was responsible for doing something to help this kid out and that Rumi could be involved if he wanted to, but we weren't going to dump it on his lap. So, in the process of all this several days later, because he took the kid down and let him sleep on his davenport and he lived on the top floor of the Polaris Building . . . Rumi did. And so, one of these days, as we were meeting in the hall, I asked, "How's our boy doing?" Well, I got a very cold look. Didn't even penetrate, did we want to know the truth?

Shortly thereafter, I got a call from C. Gordon Little in my office and he wanted me to come up and chat with him for a moment, which I did, and I walk in the room and here's Gian Carlo standing in back of the door so I don't see him when I walk in. And a couple of other people, plus . . . And Gordon says, "Gian wants to sue you." And Gian was not a very good driver. He'd had several wrecks. He had a Citreon that he drove and it wasn't uncommon for Gian to be in the ditch, someplace in the vicinity of LaMeda. And so, I kind of joshed about that. "Gee, Gian, what'd we do? Hit something when we went in the ditch?" And there was a very stern silence. Gian wants to sue you because of the remark you made about him and
his grad student. I says, "What remark did I make?" Well, you said, "How's our boy doing?" And translated through Rumi's background and his English translation into Italian and back, I was implying that he was queer and that this was a homosexual operation. I was flabbergasted. And so, I explained the whole thing. I thought that I did a pretty good job of it. And he never spoke to me the rest of the time that he was at the university.

(100)

But, that was a day at the farm. When I made the remark, the friends that know me say I should write a book called, "The Care and Feeding of Mad Scientists," and they were sometimes mad and sometimes just angry. Never a dull moment.

KB: I was wondering if you ever had difficult moments dealing with people and what some of those might have been.

AG: Well, we were always short on equipment, and one of the types of equipment is the whole series known as recorders. And recorders can be done on tape, they can be done on pen with ink fluttering like a lie detector machine, and there were several of these that were superior to others because they had such a strong [servo] drive to them that you could put different kinds of equipment attached to that part of it and make a secondary recording series. And so, we maybe had, I don't know, I'll make a wild guess and say 10 of these things. We woke up to the fact that there were three of them in a radar unit and the Army was getting rid of a bunch of radar units because the damn things weren't working right. Well, their “weren't working right” . . . turned out they were recording the aurora and in Britain, they referred to this as chasing rabbits. But, to get those three recorders out of that equipment . . . this equipment came on two or three trucks, had big antennas that you had to assemble and what not. And these panels of electronic gear, etc. The way they handled surplus property, we couldn't go in and just take those three things and say, "There, that's all we want." We had to take the whole damn thing, so we had out at Balleine Lake, we had two or
three radar units stacked, just sitting there, minus the recording devices that we could hygrade out of them. And so, it would be not uncommon at least once a week for me to be called to a meeting in the conference room to sort out the problems of whose turn was it to have this piece of equipment or that recorder or whatever. And part of it was the problem of many of those people were speaking English as a secondary language, not as what they were born with. And so, I'm in there trying to stay alive and trying to get them to work out among themselves what's fair. How long do you really need to have this thing? Do you really have to have that thing or can't you use this one over here? And there's all kinds of things you can do with this equipment. For example, you can set it up to put a little tiny micro switch in and every time that refrigerator door is opened, it puts a pip mark on whatever you are recording with... a roll of tape, a chart. And so, you can say, well this happens between here and here and there's so many times that it...

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And we caught several, I won't come out and say they were thieves because lots of times they only wanted to go in and borrow a wrench, but they had to hunt up somebody and get a key and what not, and they knew damn well that all they had to do was to pick that lock and they could go in. Well, this was happening, but we couldn't figure out who in the hell was doing it. And so I rigged up a couple of these things and set them up and trapped them about the third night of operation. And one of them was my friend who had gotten me the job in the first place and he was bent. That's being pissed off to the Nth degree.

KB: You could tell somebody was going in between certain times?

AG: But, I couldn't tell who they were.

KB: Right. So, how did you figure out who it was?
AG: Well, figure out who does what and most people are pretty fixed in their way of life. And so, that was part of it. One of these guys was stealing gasoline from the pump at the experimental farm. And the farm heard that we had this equipment. We had one of these that was a 70 millimeter strip of film, 400 feet long, and if you set this up with a timing device and put a telephoto lens on it so that you could look at the paper box out here and it clicked every 15 seconds . . . whatever you think is a good guess. And it took me a little while, but that one we didn't set up so that it clicked all the time. It clicked whenever you took the nozzle out of the machine. That started it and then it clicked every 5 seconds. And I was able to lay 3 or 4 photographs of this guy with a blank look on his face, pumping gas into a barrel in the back of his personal pick-up, and he allowed as how, that yeah, that was him. And so, he paid for the gas that was missing, and left our employment.

But, there's all kinds of things you can do with this kind of equipment, especially when you've got a machine shop and an electronic shop backing you up. Rule of thumb, a physicist is a person who does precision measurements. One of his tasks. If you can find a piece of equipment that will measure what you want, get it. If we don't have it, buy it. If we had one, but it doesn't quite do what you want it to do, let's work out what we can do to modify it to make it work, and if that doesn't work, design and build the damn thing. What's the most expensive? Design and build. It is horrifyingly expensive to design your own equipment. Gian Rumi developed a sounding device to bounce signals off the ionosphere and the people at the factory that built the thing put the power transformers, which are heavy, heavy weight things, in the top of this rack that stood 6 ft. tall.

(200)

And the things were held in place with a bunch of little sheet screws. In the process of shipping those from Chicago or wherever it was built, to Fairbanks, the thing got bounced. It tore the transformer out of the thing, ran down through, wiped out all of the tubes and the thing got here, it was a total loss. And we almost ended up in a suit in the court. Well, we don't really want to go to court. We want the equipment. They've given us this grant. We're going to have a year, a year and a half to build, gather, analyze and write
up and you people have just knocked that thing galley-west. Now, what are you going to do about it? Well, the cheapest for them . . . they made this thing already once, and if they'll just turn the machine upside down and re-do it, we're in business. So, we finally worked something out, but we lost four or five months. And so, it puts a crimp on the scientist as to what he can get out of his data and it puts him ill at ease. He doesn't want to put his name on a thing that hasn't gathered what he thinks is the appropriate amount of information.

KB: You mentioned before a Data Reduction Center. Can you explain what that is?

AG: When you gather all of this data . . . can you imagine how many miles of stuff NASA has on any one given flight. Well, we would come close to some of those here. And so, at the time when the equipment is designed, you know you're going to have to reduce data off of this and get this information out of here somehow. And the problem is sometimes the information gathering gets away from people and they don't realize that they have built a monster and they're going to have to live with it. So, to help them to de-monsterize, we hired a bunch of gals and it turned out that the gal had to be very alert mentally, but not . . . we didn't care how she dressed. We didn't care about anything else except that she was a calm personality that could repeat a certain routine time after time after a hundred times after a thousand times after 10,000 times and at the 10,000th time, be doing it so close to the original design gathering steps that you can then begin to analyze what you have accomplished gathering, etc. And so, we had a section that varied from anywhere from 4 to 10 females. We had one guy that was a retired . . . there's his name. What was his name? He was the head of our electronics shop for a while. Oh, well . . . it may come to me. Anyhow, he ran this section and we referred to it as his Harem.

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And they kept meticulously detailed account of what they did to this data and we required that the grad student involved and maybe even his senior professor, come down occasionally and spend at least an hour
going over with what they were doing to see that they hadn't gradually and inadvertently modified the gathering technique, which is very easy to accomplish and very difficult to detect at times. A couple of these gals still live in the community.

KB: *Can you remember any of their names?*

AG: Yeah. Her nickname was "Tiger" . . . her husband used to be, I don't know whether he still is, half owner in Earthmovers. Jim . . . it's there in the corner with . . .

KB: *It'll come out later, maybe. I wondered if you could talk a little bit about the relationship between the scientists and someone like you in the administration and how you got along.*

AG: They didn't necessarily like the ground that we walked on. I worked hard at trying to make sure that they didn't get a bunch of this paperwork dumped in their lap inadvertently because somebody didn't know or they saw that this pertained to such and such a project and therefore it must be this guy's work. I never did get through the list of grad students. Joe Cain, Neil Davis, Al Balon, Wally Murkree, Howard Bates, Carol Jades (female), Bucky Wilson - what's Bucky Wilson's first name?

KB: *Chuck, isn't Chuck Charles?*

AG: Must be.

KB: *I think so.*

AG: He's the one that's gone to Antarctica recently. His wife works down at the Artworks. Eugene Westcott, Jerry Romick, Bob Leonard, Harold Leinbach, and the Canadian student that I can't come up with the name on.
KB: And now what about Syun Akasofu? He wasn't there yet?

AG: Well, I missed putting him down as a . . . I missed that senior scientist. with Syun-Ichi Akasofu is the one that is there now and he was Chapman's student. He won an award to go to . . . what's the type of . . . to Oxford?

KB: Rhodes scholar.

AG: Got a Rhodes and in the taking of the physical for the Rhodes, they discovered that he had tuberculosis. And so, they got that stopped because that medicine was now available on the market and they decided the best thing to do was to take out the one lung. And his Rhodes was held open for him. Whether he ever went on it, I don't know because he left us and went to . . . I think he went to the National Bureau of Standards at Boulder.

KB: But, Akasofu started as a graduate student.

AG: Right. If we can go off the record, a story concerning Akasofu.

KB: So, you think Chapman was a theoretician?

AG: He developed a theory on what takes place in the atmosphere, ionosphere, etc. And lived to see . . . and lived, first of all, to write a book about it and secondly, to actually see the results in the process of a satellite going through these parts of the sky. And so, these two Japanese students were his selection of individuals to work under him and that's their connection with Sidney Chapman.

KB: There's a name I have here - George Reid. That's not who you're thinking of, is it?
AG: No.

KB: Because all of the other names, you've mentioned.

AG: George Reid. Why . . . the Reid . . .

KB: He's in Boulder, now.

AG: This isn't the Arctic Institute of North America, Mr. Reid, that used to be the Head of the Geological Survey.

KB: Harold Leinbach said it's somebody who influenced his career. But, I don't know who he is.

AG: Well, I noticed that I did get Harold Leinbach's name on the collection.

KB: Before, you were talking about some of the equipment.

AG: Right.

KB: How did you get from managing the paperwork on all those different grant projects to doing the equipment?

AG: Try that over again.

KB: How did you end up doing equipment when originally you were hired to manage all the paperwork for the different grants?
AG: Because to get that equipment was a paper mess. A lot of that equipment is sitting out at Fort Wainwright right now - 6 mile surplus. We have the legal capability of filling out the proper forms and being able to go out there and scan that equipment and see what we want out of it. And so, well . . . you see those stainless . . . those things were passed up by everybody and put out on the civilian desk where the civilians could get at it, and eventually were put out for public sale and I bought those things each for $15 a table. They're stainless steel. So, your wife can come along and put all kinds of plants on there and not leave any water marks on any furniture or anything like that. But, no, getting the paperwork . . . we had one guy that I assigned him to one day a week - a week? No. It had to be one day a month, to go out to Wainwright and scan for stuff. Because he worked in the shops and was pretty well aware of what . . . and he had a nose like a . . . I used to call him a hog because he could burrow around and find these things. Because a lot of times, the people out there were playing games. There would be cameras that would come up from surplus with F-2 lenses in them and they were tucked away in the back of the safe in the guy's office and if nobody put the paperwork, or if they did put the paperwork but screened it very carefully, you would never know that was there. This guy not only knew they were there, but found the paperwork that was being hidden behind it and it turns out that a couple of the cameras, we wanted and used. A couple of the cameras, we didn't want. So, we pushed them back. But, there were all kinds of things out there on surplus. Unless you've been out there and wandered through, you don't really appreciate that Fort Wainwright, or Ladd Field, as it was when we were doing this stuff, is just a big city. Anything that it takes to run a city, they need. They buy more than they need so in case they break some. They buy different things and they have to junk this because they can't buy that kind of stuff anymore. The model has changed. All kinds of stupid things. And so, when we're building things, why go and buy a bunch of this stuff when I can go out there and load up a truck of surplus, go in and sign the paperwork and that's the end of it.

KB: *But, now, how do they work it? The university is civilian and you had access to military surplus.*
Because, let's see if I can follow my own self. Let's say that there is a device, I don't care what it is. And it is finally up for surplus. We can't use it any more. It may be brand new and has never come out of the packing case, but we just can't use it. And somebody has come out and looked over their shoulder and said, "What are you people doing letting this stuff build up in your inventory when you know you aren't going to use it. Get rid of it." And so, it is circulated on paper to all the others of equal rank, so that if this is Air Force, it is sent out to Army, Navy, Coast Guard and Marine. And if any of them want it, come get it. And if they don't, then it is bumped down, the next time, to civilian government. And so there is Geological Survey, DLM, Forest Service, who else? Anyhow, nobody there is interested. So, they bump it again and this time, it's down to civilian level and the civilian level happens to be educational and religious. This kind of stuff is spread from here to the mouth of the Yukon by a little scrawny old man that works for the church here, or did. I don't think . . . he's probably dead by now. But, all kinds of things that went for free except for shipping costs. And they're very good at getting this stuck in a corner of a barge and drop it off at such and such a school, if you would, please, and God Bless. And so, if it goes there and they don't want it, then the last people in line can put in and say, "Well, we don't want all of it, but we'll take this, and this and this, and so you take that, that, and that," and again, write all the paperwork on it and remember all of this is miles of paper and you get so that you know the name of the form you want and talk in jargon, but that is how surplus is created and gets onto the marketplace, so to speak.

They've recently changed that so that it gets down so far and automatically gets sent off to someplace and the civilians don't get tangled up in it at all.

KB: Now, were you involved in any way with fighting for the money that would come into the Geophysical Institute? Or did you just manage it once it was there?

AG: Mostly management when it was there. I tried to touch base with the Washington, DC, offices of the agencies that were funding, A- to find out how are they doing with funding for their projects because their money comes in two chunks. The one chunk is in-house and the other is their contract stuff that they're going to spread out. And this contract stuff turns out to be quite political. When you find out that you're the
only state that didn't get any funds from such and such an operation, and they're handling $7 million worth of work, you make a phone call to the Senator and say, "We don't know what's going on over there? Could you find out for us?" And the first thing you know, you get a phone call that so-and-so is coming up. He'd like to see your shop. He's always wanted to go to Alaska. And this guy comes in and he's got a . . . as I used to refer to it, he's got a check in his hip pocket. And he knows how it is. And so, he wants to buy some science, but in buying science, he wants to do it in such a manner that his shop gets credit for it. And so, they come up there and they want to find somebody that can do this kind of work. Well, it turns out that we happen to have a guy that does that kind of work. However, he's pretty well bent on getting this little question answered and he's real hung up on this. Well, we'd like to know some of those answers too. Could he do a couple of these questions for us? And so, it doesn't take everybody to go through and find some of these things. Once you learn how the game is played, you know where to ask questions or who to try to take out to lunch so that you can ask some questions out of the office and find out what's going on in these. Sometimes there's just no finding anybody that wants to play the game. There were some purists over in the botany department that thought that that was horrible to spend tax money on such nonsense as whatever it was. And I have one gal that doesn't speak to me at all because I insisted that she put a trip to Washington, DC, in with her grant request because what good is a grant and you do a paper and nobody knows that you did the paper? But, if you do a paper and take it to this meeting and present it, first of all, your name is mentioned on a nationwide group and secondly, there may be somebody in the audience that says, "Where in the hell has she been? I need to talk to her." And it goes on from there. But, oh, this gal . . . that's terrible. We get money every other year to send somebody to a meeting. A meeting, every other year? And you're living off of contract research? The two just don't fit together.

(End of Tape 1 - Side B)

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(Begin Tape 2 - Side A)
KB: Let's see where we left off here. One thing I was wondering about is some of the challenges of this type of a job, if you could talk about that. The challenges you faced on the job.

AG: Oh, I'm sure there must be, but you realize that I've been away from that since '78, and that's a long time.

KB: Do you remember when you first started? What was the hardest thing?

AG: Oh, I suppose the hardest thing was learning all of the different administrative ways that the various agencies of the federal government operated. One of the things that was always a headache was the oil companies are very interested in science, especially so-called geophysical science. They think they invented the game and get very frustrated when they find out that we're interested in upper-atmospheric physics, not below the earth. We actually are interested in below the earth, but it rattles their cage when you drop that in their lap. The oil companies – it’s a big secret game. They don’t want to talk about it. They want to look at all your data, but you can’t see their data. And they are getting interested in an oil pipeline back in the late ‘60s, early ‘70s, and they want to see what we have. We’d like to see what the sediment deposit is off Barter Island, off of there, and they’re horrified to find out that between Barrow and Barter Island, we have one recording sequence that went out three miles and that is the total thing. They could not believe it. And we kept saying, “Well, we’ve been telling you people this is going to happen, and we’d sure like to have some data.” And so, OK, we’re going to get some funding. I mean this is going to come through fast. But, there’s a little clause in there that says that we can’t use the thing. Well, if we can’t use it, what’s a grad student going to use of his thesis topic if we can’t use the data that he’s gathering for them on paper? And so this goes round and round and round and they finally give in to where, well, 18 months after we receive the data, they can release it to us. And this type of game that is played and they play it well because it’s the expression “the closed hole.” It means that the information, that is the geological
information, the stuff you look at through a lens, is locked up tight as a drum and anybody that releases it
without written permission can kiss their future good-bye in the oil industry because if the word gets out
that you leaked data on a closed hole, your name is mud.

KB: By "closed hole," you mean a closed drill hole?

AG: It's the data from the drill hole. It's the data from the seismic stuff that this drill hole is in the center of,
etc. And so, when you're trying to play the scientific game and open science and what not and the oil
industry is over here locking up every little thing that they can, it's just a big headache.

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And probably the smartest thing to do is just wait until they are feeling generous and give you a grant that
you can do anything with and any other stuff, forget it. Tell them to go hire somebody. And that's . . .
you've got to look out for the grad student himself. You've got to look out for the university's interest and
it's frustrating as hell to go to testify on what's needed in front of a committee in Juneau and one of the
committee members, maybe the chairman, who happens to be a fisherman, wants to know, "Well, how
many fish did you put in my net last week, or last year?" And what's your answer? But, there's not a
legislature goes by that that question doesn't get thrown in somebody's face in Juneau.

KB: So, how did you end up learning all this science administration if you hadn't done it before?

AG: Well, a lot of it is just straight business management. When you work for the Forest Service, they're a
pretty broad general agency and you have all the things that they go through including and especially the
internal politics. Have you ever seen the building out on Fort Wainwright that used to be the Arctic
Aeromed laboratory?
AG: It's over to the left from the hospital out there. Three story building that they were given. They did - how do we phrase this? - they were the Arctic branch of the testing necessary for new equipment in the Air Force. And so, they had a team of about 5 or 6 master sergeants that tested the latest in clothing, bedrolls, food. They had a lake down here that they'd go out and camp on for a week and live off the ground. Catch 4-foot long pike, nothing else to do. But, in the process of this, you wake up to the fact that they're hurting out there for help in the form of lab technicians and things like this. And they've got a table of organizations that says you can hire so many of this, this, this and that. And then here's $100,000 or $200,000 over here for incidental things. Well, it turns out incidental has come to the Geophysical Institute. Let's write out a contract. We want to hire 7 people and they will report to Aeromed labs and you people will payroll them. And when you find, what are they doing? Cleaning cages in the rat colony, exercising dogs over in the dog bunch, etc. And incidentally sorting out the fights that our people get in because they don't report technically over there. Actually, they report over there, but technically, they work for me because I'm the contractor at the Geophysical Institute that's doing this to help the Air Force out. And so, it's that kind of ridiculousness that . . . I don't know how many cocktail parties I've been invited to because I was the senior contractor with this thing and we were the ones that bailed those people out when they got their ass in a jam with whatever they were doing or whatever they needed.

Because, if they went through their supply, it would take six or eight months and incidentally, that was one of the problems we had. Why the Geophysical Institute had its own separate business office was because they give you a contract and they give you 12 months to do it. And do it starts with getting the equipment and setting it up and operating it, gathering the data, recording it, interpreting it, and writing a paper and handing it in. And it gets kinda screwy with things that can happen.
We had a psychologist on campus who was doing a paper and I can't even remember what the hell the title of the paper was now. But anyhow, he wasn't getting the paper in, and it was bothering him severely. He was turning into a mental case. It got to where we were two months behind schedule from getting the final report done and he's off at a hotel in Boston of a national meeting of headshrinkers and I've got him on the phone and I have never talked to anybody that I thought was closer to suicide than when I was talking to him. In fact, I got the desk to get one of their security people to go up and sort this thing out because I was so disgusted with him. All I wanted was the paper and if he wants to jump out of the window on the 9th floor of that hotel, do it, but sign that paper first, will you? But anyhow, the day to day operations you've gotta learn to live with. When you're in a research organization, you're hiring people for what they do and how they do it and the results of what they accomplish and how they dress, their manners, similar type problems . . .you get so that you appreciate somebody that almost acts normal. But, they are very interesting people and it's always sort of fascinating to see what they come up with as a solution or a question or whatever.

KB: You mentioned that the GI had it's own business office and it's interesting why it had it's own business office instead of just using the university's main business office.

AG: To get anything purchased through the main office of the university is a procedure that goes on and you're given a year to get a contract done. Where are you going to try and do business? With the one that can get you the contract. Let me give you a shining example of how stupid things can get. The University of Washington developed a new breed of fish that was - I think they were trout, but I don't remember that well. They had two ponds of these things and one that had 30,000 fish in it and one that had something like 1,000 fish in it that was kept off and separated and what not, so in case anything ever went wrong, they didn't lose both. They had a special filter system set up to make sure it would continually be washing the waters and they ordered 5 tons of this charcoal to reload the device that they filtered with and let her go for another year.
A guy in the business office saw this and says, "Holy Cow, did you see the price on that? Why, I can go
down to Safeway and get it for this." Which in fact, he does and doesn't tell anybody. 30,000 fish go down
the tube because the charcoal they got had a whole bunch of poisonous whateveres in them and if it wasn't
for the pool of the 1,000 fish or whatever it was on the side, they would have lost 10 years of work.

KB: Because this guy went and bought charcoal at Safeway?

AG: Right. And where does the guy work? In their purchasing department and he did this without thinking
that there was any possibility . . . He knew he was right and he was so wrong that he damn near broke up a
department. But, it's that kind of thing that you get tangled up in and the other side of the coin is that you
get so that you want to do business with certain things, certain agencies, certain . . . how many different . . .
say you've got 10 cars. How many different cars do you want to try and maintain when you wake up to the
fact that each one of those cars is a different manufacturer. And what are you going to do for parts? Is there
any special training in technicians that handle this equipment and it goes on and on. And so, you get so that
you say, "Well, for 5 years, let's go with this, and if there's any new stuff coming on the market, let us
know, so that we can figure out how it's going to affect us." And every once in a while they would call a
meeting and say, "Hey, it looks like this kind of equipment's coming on the market. Are we really
interested in this or what do we do?" You try to keep a pretty high caliber person or persons in the business
office part of the acquisition process.

KB: What do you think makes a good science administrator?

AG: Somebody that . . . this is an argument that I've had I don't know how many times. That for some
reason, there is a feeling that to get a top administrator in a research organization, you want to hire
somebody that has published 30 papers . . . take a big figure. And that person must be an ideal
administrator. He's never been to any management schools. He hasn't worked his way up through the ranks as a manager, yet all of a sudden, he's the top honcho in that organization. Now, the same thing can happen in the business office. And if they haven't given some training . . . I was trying to remember an example here locally.

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The Borough got in a big flap because the business officer . . . god, what was it that she did? She released some funds or something in an area where she had been there for something like 10 years and she had never been sent to any training schools that the industry owned and there's all kinds of these things that go on nationwide, and topic wise. In fact, the local university is giving some of these to beginning business people in how to do what to when. And so, I have very little sympathy for organizations that don't try to pick people and see that they have had some training.

College presidents, for example, each year or every other year, somebody in, I think it's either Harvard or Yale, but maybe it's Dartmouth, puts on a week-long session for college presidents on what does a college president do. How does he do it? And if you've ever followed close to what a college president is doing, he is about 5 or 6 different people, depending upon who's in his office at the time. Is it an alumnae, is it a parent of a student, is it a faculty member, is it his business officer, who is it? And he is a different face to each one of them. And he needs to be told and shown how those faces work and why they're that way and what you do about it. Have you ever heard about any of those kinds of things happening to a science administrator? Weird. But, he has so many papers. Sure, he's got papers. How many grad students helped him get them?

KB: So, you're saying a science administrator should be a business person, not a scientist.

AG: No, I'm saying that the science administrator should be given some opportunity to gain some talent, some skill in administrating to an individual because he's going to lead the people in his . . . he controls a
lot of the money. Not necessarily all because some of the agencies are smart enough that they'll give the money and ... Vic Hessler got a grant to Vic Hessler, not to a bunch of people over here that were in the same topic. But, they just wanted to control it because they knew that there was not a good administrator in that branch of that group. And so, this is a way that some of the older type heads in the agencies have of controlling what goes on in some of these places.

KB: *What is it, do you think, about yourself that made you so well able to do the job?*

AG: Oh, mainly because I get along well with people. And I suppose there was some fat dumb luck involved, too.

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KB: *So, how long did you work at the Geophysical Institute?*

AG: I was there 7 years. I was 7 years as the Associate Comptroller for Research at the University and then I was another 8 years as the University Land Manager because I wanted out of the politics that was going on on campus in the research side of the fence. Worldwide, there are hundreds of exceedingly well trained individuals in science. Not necessarily in personnel management because these are foreigners and Americans do things different. And it's a problem that somebody needs to keep jabbing at the university hierarchy in that you be a little cautious in how many foreigners you hire. I can't remember all the story, but I've heard it several times because my boss was involved and it got so bad at Chicago that it was referred to as the broken-English university. And that's how bad it can get. I would see some of that. The Greek here, Abbott, wanted some pencils, so he called me up on the phone and asked me to bring them up to him. So, I said, "Well, the next time you're by the office, let me know." And within 15 minutes, he comes by my office and so I says, "Hey, Abbott, let's . . . " And we went over and opened the supply locker and what do you know, there's pencils and I said, "Pick what you want." And I walked off. And he was furious because
in his country, a professor does not get treated like that. And when you get checking in to this, Norway, for example, where Leif Auvren came from, the diplomatic corps is at this level and right underneath that is the doctor Ph.D. And they are very well aware of that position and they get frustrated as hell when we come along and say, "The stuff's down there in the hall. Pick out what you want." You don't have to stomp on their toes, but you have to somehow subtly let them know that "You're in America."

KB: How did you deal with some of the difficulties with other people?

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AG: Some of it you do just face to face. Some of it you do behind the scenes. Some of it you do and pass the word up through the ranks that so-and-so's . . . We had a young lady that was on campus with the program and she was actually quite smart an individual and she got messing around with marijuana and the quality of her work began to show this. And, in fact, it got bad enough that her senior professor approached me and wanted me to do something. And so, I figured out who she ran with, who she worked with, who she knew, cornered two of those people and said, "Hey, we have a problem. This is what's happening and this is what's going to happen if it doesn't get straightened out." And I said, "I would like to handle it through you. If for some reason you don't want to do it or if for some reason you can't do it, let me know, but I'm not going to stick my nose any further into it than that. If I get it any further, I'm going to have to take official acknowledgment of it, and I don't want to do that." And as far as I know, she's still on campus and that was 30 years ago.

KB: Can you think about something that was your most favorite thing about the job?

AG: Oh, the interesting people that you met. I apparently had a knack for explaining what some of these programs were about in layman's terms and so I don't know how many, two, three, four star generals, admirals, politicians. I drug Gruening half way around the campus before I got it through my head that he
was our senator. Because I hadn't been introduced to him other than would you take so-and-so? It just bounced off and didn't click. Made me feel like an idiot. When . . . who was the atomic bomb father?

KB: *Edward Teller?*

AG: Teller was here. I had just shot an elk and had the elk skived so that the leather is uniform thickness all around and had had a sportcoat made out of it. And what I didn't appreciate was that the damn thing shed, and at that time, there was a . . . what was on? He was on campus. I was assigned the task of showing him around and to get him to a chair and the chair was marked over in the old gymnasium, for whatever it was going to be. Can't remember now what it was.

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KB: *Must have been Project Chariot, maybe? You know bombs to plowshares things? Maybe it was . . .

AG: It was part of that program, but why they were there in the gymnasium, I don't know. But anyhow, it turns out, he has this pinstripe suit on. Beautiful threads and I smeared the side of him with these white little flecks that almost looked like dandruff from that damn jacket. Oh, man. I got away from him as fast as I could so that I could go find some other clothes and get into them. Dumb, dumb.

KB: *Did the Geophysical Institute have anything to do with the Project Chariot?*

AG: Not really, no. The discussions that were held, we were in the middle of, because it was physicists talking to physicists. But, the questions that were being asked and the answers that were being given, because the biology department was in there doing their best to get things killed, why if so-and-so would ask a question, this guy would listen to the question, but because the terms are slightly different, he gives an answer that is not quite an answer to what was asked. And that's Step 1. OK, let's go 10 more steps down
the way. And these people are talking about this from there and you're trying to figure out what is going on here? And so, somebody got smart and said, "I think it's about time we break this up. We'll meet again at so-and-so." Right now, I don't remember that we ever met again. But, that's a long time ago. But, that type of thing can happen so easily in discussions where terms have not been laid out as to whose vocabulary are we using.

KB: *Can you talk a little bit about what was happening at the GI during the IGY?*

AG: Well, IGY was an 18 month long period. We had I don't remember how many grants now. Some were just to exchange data. Some were to gather data and send it to a certain gathering point. Some were to devise and build an instrument to measure this - this being the aurora in the night sky. And the data gatherer was known as the All-Sky Camera

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And get those built and tested and shipped out on a world-wide basis. It was interesting. A couple of years ago, I had a chance to go to Yakutsk in Russia - Russia Far East - and I noticed on the map there was transportation available if I had wanted to push it to go to Tixie up on the Arctic coast and Tixie was one of the major auroral recording stations of the Russians. And my boss, Chris Elvey, would have sold his soul to get a chance to either go there himself or send a grad student. In fact, he approached all of the grad students and tried to find one that would take a year's break from their program and learn Russian enough so that he could go up there, because he was sure that that would open up the Arctic data-wise. And that's what he wanted to do. But, when I saw that on the map, it flashed through my head immediately that god, if Chris Elvey had seen that he would have walked.

KB: *But, you didn't go up there.*
AG: No. We made ourselves available to other groups and the group from Minnesota that was flying high
elevation balloons and measuring something, and I don't remember now what the term was. Anyhow, they
launched this balloon that went up to, I believe 100,000 feet, and was supposed to catch the jet current and
come over on top of Kotzebue and they had a device that they could trigger and cut the thing loose and it
would drift down. Well, the thing goes up in the air, the launch is nice, it's gotten to the elevation, it's
gradually moving a little bit. They decide to have some food. They come back and the angle has changed
noticeably. And what's going on? And the thing is headed out towards Canada. And we had not made
arrangements for this to go to Canada. The Canadian government's going to be p.o.-ed because we're
putting some kind of a camera over their country and they don't know about it.

(450)

And so, finally it gets to cut-down time and the thing drifts off into the sunset. And other than to
explain what it was and where it was we thought, and what not . . . some months later, Shell Oil survey
crew is out over the McKenzie delta and they see hung up in a tree this parachute and all they can think of
is oh god, we're going to go over there and there's going to be a body on the end of that damn . . . And they
get over there and it's not a body, it's a box, about like so. And they see that there's some printing on the
side of it. So, they go over and cut this thing down and take it in and turn it in to Customs at Inuvik. And
they notify us and we notify the people down south and they say, "Well, let's try and get it back. We need
the film in it. The rest of it, they can keep." Well, Canadian Customs doesn't want to release it that way.
They want somebody to come sign for it. And this goes on, and on, and on. So, I'm finally tapped. "Al, go
over and get that damn piece of film and get back here." So, I get over there just in time to be told that
they'd given up on us ever coming over and as I'm landing in their strip up there, this device is on a plane
that just set down at Fairbanks. And so, I'm there for another 24 hours because I'd made charter
arrangements to get picked up. But, yeah . . . strange things done under the midnight sun.

KB: How did you keep track of everything that was going on during IGY? It sounds like it was pretty busy.
AG: Oh, it wasn't that busy and the keep track part was more correspondence and phone calls between the grad students who were running the programs and I didn't get involved in these type things until there's money being spent or there is a report due, or something.

(500)

The average university has a program called their post-doctoral, which is usually one or two years after a Ph.D., that a person is given to do work. And I'd always contended that the quality of work that we got out of our people because of our location and our lack of being able to run down the block and buy this or get in the car and drive over to this university and see what they're doing with this. I would put our people up against any of them as far as capable. Neil Davis, raised locally as a kid, interested in the aurora, among other things. Got a chance to go out and work for one of the agencies, I think NASA, at Washington DC. He was interested in taking some magnetometer recordings. Now a magnetometer is a device that can't have any ironwork nearby and to get a shelter built for this instrument, would take all the going through the bureaucratic nonsense and then get a shop and make sure that they don't put any metal screws - could be a brass screw, but not steel screws. And he sees what's going on, goes down and buys a tent, comes up and pitches it on the lawn outside his office, sets his instrument up in the thing and gets his recordings and he's through with it. Just an example of when you're used to thinking things out different because you live where it's different, you have these capabilities to . . .

(500)

I'm trying to think of another example, but I don't . . .

KB: I'm going to change the tape here.
AG: Pardon me for interrupting, but he had heard that there's a device on the market like a television tube, but is something like 5,000 times more sensitive. But, it belongs to agency A and I can't remember who these were, whether it's NASA, or Office of Naval Research, or somebody else. And so, he got checking around and without saying much to anybody, makes arrangements to borrow one of these things to take someplace where there's going to be auroral activity and get some pictures, which in fact, he does. The agency that owns the equipment won't let it go without their people aboard, so he gets something like 5 technicians along with this instrument. They get transportation - how, I don't remember - to Churchill, which is where the Canadians had been doing all their rocket launching from, and makes all kinds of hay with this thing. Works like a charm and basically, his agency people were attempting to be furious because he dealt with the enemy - that other agency over there that they wouldn't have anything to do with if they could help it. But, he ends up a hero because he was able to get actual pictures of the aurora at the time that they're going on. Not this time lapse delayed stuff that everybody had been playing with all these years.

KB: I was going to ask you about some of the different people that you worked with over the years, managing their funding and project paperwork. Who the people were and could you talk about some of those people - the good and the difficult about working with them.

AG: Oh, that's been a long time.

KB: Like, what was it like working with Chris Elvey?
AG: Elvey is an interesting gentleman. Very polite. He loved to joke. He wanted to be kept up to date on his various students' projects, but he didn't necessarily want to tell them that they ought to be doing this or that or what not. He felt quite at home in seeking funds from federal agencies, but he felt ill at ease approaching private foundations or private companies. And I never quite understood why. I'm sure it's something in his background on some of the jobs he worked at. He always maintained that he was forced to do the lay offs at Chicago because the boss would say, "This is the guy that's got to go," but he wouldn't say anything to the guy's face. And so, Elvey just practically had a rule, unless it was something horrible, a person would be given at least 6 months notice of termination, so that he had an opportunity to spend 6 months looking for a job, if at all possible.

I know that one of the . . . we finally were running low on funds because the economy was down and the agencies were told, the federal DOD agencies, were told by McNamara to stop funding research, which just cut our throats. Fortunately, Hildie Haight, who was the business manager for the Institute, had rat-holed away a sizable chunk of money. We carried a lot of the grad students for . . . oh, three or four months after we ran out of funds, because she had rat-holed away funds in several places. And so, the worst thing that I ever had to do, personally, was for Christmas of that year, I had to lay off 26 people - give them, so called pink slips because of well, we were out of money. Can't spend what you don't have.

KB: Now, what year was that?

AG: Well, whenever McNamara was Secretary of Defense. Don't know anything around here that that might be in either.

KB: That's OK. It was after IGY.
AG: Yeah.

KB: *What about C. Gordon Little, somebody mentioned?*

AG: C. Gordon Little was a British radio astronomer. He was responsible for putting up the two 28 ft. dishes that we used to have out on Balleine Lake. I don't know where those dishes are now. I don't even know that they still exist. But, anyhow, very well trained. Rather wry sense of humor. Wanted to make all of his decisions. Didn't want anybody else. If he thought I was trying to make a decision, boy, he was all over the place. But, that was fine by me. I wasn't the one that was supposed to make decisions. The level at which he was working, he was the one that was supposed to make the decisions. But, that's life in the putty knife factory.

KB: *What about Leif Auvren?*

AG: Leif Auvren was a Norwegian. He liked to work at night. He came to work about 8 o'clock in the evening and left 3 or 4 o'clock in the morning. His office was on the top floor of the then Geophysical Institute Building that's now known as the Chapman Building, I think. He loved to play chess. For some reason or other, he felt guilty when somebody would walk into the office and he had the chess board in his desk drawer and he'd pull the thing out and play chess and I'm pretty sure his chess was going with several individuals nationwide.

(100)

And apparently he felt that he was goofing off if he was caught playing on company time.

KB: *What was his field of specialty?*
AG: The ionosphere and what they were doing was bouncing a radio signal off the ionosphere and measuring it's return and in the process, the radio wave apparently acts like . . . you've heard of the experiment where you take a bucket of water and run a stick into it and it makes the stick look like it bends.

KB: *Um-hum.*

AG: OK, that's refraction. Radio waves refract and they were trying to learn more about the ionosphere by studying the refraction of these and he was one of the senior scientists on that. What else did he do? We had an all-white Huskie and he loved to hold that Huskie in his lap which always was a mess because the damn dog would shed all over him and he'd have all this white hair on him. But, he did like our white Huskie. I guess I should refer to it as a Samoyed.

KB: *And what about Gian Carlo Rumi?*

AG: Well, he was a new Ph.D. from Cornell. I can't tell you where he came from in Italy. He was from an upper class family. He lived on the top floor of the Polaris Building and at the time, there were about 5 or 6 prostitutes living in the building who apparently delighted in flirting with him when they were riding in the elevator and he was along. And this . . . Rumi had two classes of women. There were those on this pedestal over here and there were those that were street walkers, and as far as he was concerned, he was stuck in this building where there were all these streetwalkers. Used to come to our house and have spaghetti and marinara sauce and after the incident with the Canadian student, why . . . he never spoke to us again. And I pulled a horrible faux-pas by calling it "our boy."

KB: *Now what about Vic Hessler?*

AG: He was the retired head of the Department of Electrical Engineering at wherever I said he was.
KB: *You said Illinois.*

AG: I think it's Illinois. He came to Alaska to visit his daughter. Now, what the hell was she doing? Why was she up here? Anyhow, she introduced him around at the Institute and he fell in love with the place. And so, he asked them if he could have a job and they said yes, if you come up with your own money as far as getting a grant or something. He said, "Well, yeah," and he in fact did this. And when the aurora takes place, it induces an electric current into the ground and this electric current, depending on many things - the intensity and the motion of the aurora itself, the type of ground that it is reacting in. They put antennas in the ground and measure these.

(150)

And he discovered several interesting things. For example, when they fired the atomic shot at Johnson Island, he happened to have his recorders running and actually recorded the event as a spiking in his gear and this became known to DOD and they wanted to classify the instrument immediately. And Dick was absolutely furious because here he had this data and they weren't going to let him print it. Oh god, he couldn't say enough to scorn the DOD. We had that happen several times.

There was another name. What was he . . . Australian. Anyhow, he wrote a paper and went to publish it and discovered that he was stomping on - this is data he had gathered in Alaska out in the open - nothing fancy. Nothing sneaky. And they wouldn't let him publish it. In fact, they wouldn't even let us store it here. And if he wanted to look at his own paper to refresh his memory on something he had said in it, he had to get permission and have a special security officer present when this took place.

KB: *That must get frustrating.*
AG: Oh, absolutely. This is one of the big battles that goes on between industry and university. You feel that your sole aim in life is to get information to the public and create data that takes knowledge a step further, and industry wants nothing that is going to hinder in their chance to make a buck. And, of course, the Department of Defense feels this way about other agencies. When they found out that he was an alien and had written this paper, they came unglued. Oh, geez, it was funny.

KB: *Do you know how the scientists handled that kind of stuff? They ever talk about it?*

AG: You hope that you're not getting into something that is . . . we had several people that were cleared through top secret and they were allowed to read papers, but they were not allowed to store them or take them home. I was, among my other chores, the security officer for the Institute. I had a four drawer steel file with a fancy locked rod on the thing that stored papers that were sent up here for our scientists to read and then whatever, keep them around for a while in case they want to look at them again . . . whatever.

(200)

And it gets to be a nuisance. I was sent back to the industrial - it's got a different name - Fort Holibird is the training center for security of the Army and I was sent back to go through a 5-day course on security, how the enemy gets into our files, what they do with it, etc. And apparently, the way the game is played is the file that you put them in is really not very strong. Anybody could take a cutting torch and cut through them, but to do that, you also have put somebody on notice that, hey, somebody got into that file. What was in it? Well, let's find out. Now look there. That paper there. Well, we've got to notify people and see what we can do to counter what they now know was on that paper.

I got assigned some Lieutenant Colonel who thought it was so ridiculous that somebody in Alaska was down here worried about security of written material and he just couldn't understand it. I tried to get him to come up to Alaska, but he always chickened out. Weird. But, part of the game is hoping that you can
do your thing without having somebody come along and say, "You've done it, but now you have to undo it."

KB: *What about William Abbott? What was he like?*

AG: He was one of those that thought I ought to deliver him writing paper and bring up some more erasers and what not. I just got so I ignored him.

KB: *You mentioned Wes Britten.*

AG: Yeah. He was a . . . as I recall, he was the head of the physics department at Boulder, and had a wife that had . . . what's the word, MS?

KB: *Multiple sclerosis.*

AG: Multiple sclerosis. She had multiple sclerosis. He loved to dance. We'd go out for an evening and dance in somebody's basement or wherever and he'd be out on the floor by himself. He built a new house down at Boulder. I stopped in to see him and he had one - I don't know what kind of a room you would call it, but it was as over to the edge of the rug wide, and probably 60-70 feet long, and just practically orbit.

(250)

He was a brilliant mathematician. One of the industries, and I think it was Shell, but I'm not quite certain. I wouldn't want to quote it. He was attempting to develop a formula that would describe a condition under which an atomic fusion could be contained by using magnetic fields. And that's way out math. We always doubted there was anybody short of maybe Sidney Chapman himself that could understand what Wes was doing.
KB: *What about some of these grad students you mentioned? What were some of them like to work with like Bucky Wilson?*

AG: Bucky's an interesting type. He apparently had a real problem with his first wife and anybody that knew enough about him to know that it existed and wanted to get under his hide, that was a method to really put him into orbit. I notice he's going back to being called Bucky. For a long time, he was very incensed if anybody would call him Bucky. He was Charles. Doing some interesting work on shock waves . . . first of all, trying to measure them. And also trying to figure out where the hell they come from. He has set up measuring equipment. There was a bunch of it in back of the . . . you know where the peat bog is down there on College Road . . . the one across from - how do I describe it?

KB: *The place you buy peat? Jurassic peat?*

AG: Not Jurassic, the next one up towards College.

KB: *Yeah. OK.*

AG: OK, in the back of that field, there are 670 acres there that I'm rather proud of because I got that for the university after spending every year of 20 years writing an annual report for that stupid piece of ground. But, that's the way their law reads and that now belongs to the university. In fact, they're selling peat out of it. And they get money. They get a royalty out of what those guys take out of there.

*(300)*

KB: *Hum. I didn't know that.*
AG: And, now that got me started, but where did I get lost?

KB: We were talking about Bucky Wilson.

AG: Oh, one of his projects was out there. He's got another one in Antarctica. Where else? I'm supposed to know of one other one, at least. But again, they're attempting to find out more about what makes things tick. That's the interesting thing about research is there's somebody always looking for something new.

KB: What about Harold Leinbach? What do you remember about him?

AG: Well, he had a wife. She spent some time living in the Hess Hall which was the women's dorm. I don't know whether she was a student here or what. Harold was instrumental in making a device called . . . what?

KB: He used the riometer. Riometer?

AG: That's right. The riometer. And the riometer, it turns out, could be set up to measure the intensity of an auroral display that was happening overhead. And so, it would be an ideal thing for people that wanted to be able to second-guess what was happening with radio signals, radio transmission messages, etc. Taking photographs . . . Vic Hessler had an early day riometer alongside his bed and his camera and stuff all ready to go and the bad part about the aurora is, you can devise one of these things that will signal you, but it doesn't look at it and say, "Can I see it?" Because it's above the cloud level. And so, if you know that it's going to be clear, or have a good idea, and you have the ambition I'm going to get up and do this, why, a riometer works like a charm. And now, what else the riometer was measuring, I can't tell you. If I knew at the time, it's long gone.

KB: What about Al Bork? What was he like?
AG: Bork. Bork was a theoretical physicist, which I had never heard of. I'm not sure to this day that I understand what a theoretical physicist does, but what part of theory he was working on ... I have been reading ... it's gone ... Feinman?

KB: Richard Feinman?

AG: Yeah. He's a theoretical ...

KB: Right.

AG: They left here and went ... where did they go? Did they go to SRI or did they go to someplace else? I don't know where they went.

(350)

KB: What was he like to work with?

AG: He. Very nice personality. I don't know what else.

KB: I'm just trying to get a sense of ... you know, you worked with so many different people. A sense of the kind of relationships people build and who was easy to work with and who's not. Those kinds of things.

AG: It all depended on what they were after that day of the week. I want the recording device that's in your office, or I'm through with it and I can be a hero by giving it to so-and-so, or whatever. So, you just never know for sure what's going to trigger somebody being overjoyed that day or not.
KB: *Well, it sounds like you socialized with people from the Geophysical Institute as well a working with them.*

AG: It was all one big family. We were aware of such things known as happy hour.

KB: *So, did everybody get along with each other?*

AG: Pretty much so. I'm not aware of there ever being an actual fisticuffs take place. There was a lot of loud yelling and what not occasionally over something, but . . .

KB: *Do you remember any of . . .*

AG: No, unfortunately, I don't

KB: *I've always just sort of wondered what it was like to work at the Geophysical Institute in the early days.*

AG: I'll say one thing there. The old building had two floors and the bathroom was on the . . . well, it had three floors. And the bathroom was on the second floor and the bathroom was next to the library. And so, you couldn't go to the john without being aware that Margaret, the librarian, had set up a little frame that showed what were the latest editions. And you could not be around the library without somebody getting a discussion started about something - a headline on a book or whatever. You never knew what was going to trigger. When they moved the building up to what is now known as the Elvey Building - 6 stories is it, I believe?
I contend that the exchange of information dropped noticeably. They have a one-hour a week lecture that somebody has to give every week, and it's usually some grad student has the duty for X number of weeks, and then it passes on to somebody else. And you try to leave an open period in everything that's planned after that meeting in case something triggered some question that got somebody off on a thought pattern that they might not have had triggered had they not stumbled into that meeting and heard this, and so you do what you can to get people rubbed against each other knowingly. There was hardly ever a visitor to the campus from a funding agency that didn't end up having a cocktail party thrown for them just to get them to meet with some of your staff and the introverts loosened up with a little bit of alcohol. I always contended that the only reason Chris Elvey hired me was because I knew how to make a martini.

KB: I guess that's a good skill to have.

AG: Well, it's a way of life, apparently, in the Navy. And when you're a high civilian official in a Navy officer group, why, you learn to nursemaid a martini and two's the limit. Although I've known to see more than two consumed.

KB: One of the questions we've been asking people who have spent time out in the field in various parts of the Arctic and Antarctic is the military versus civilian aspects and I don't know if you have anything to say about that in terms of your connections with all of this.

(450)

AG: Well, Antarctica is pretty much run by the Navy. NARL used to be funded by the Navy, but the Director was a civilian in the form of Max Brewer and John Schindler. The Navy was set up at Barrow to give you all the support that they had the capacity to accomplish - light planes, over the snow tractors, we never did get into the class of whirlybirds, but food, equipment, clothing. Most people don't appreciate that clothing is very important. I even had trouble here with people that had lived in the Interior in 50 below
weather, but they've never been on the coast in the wind. And that wind can turn you inside out. Just look at the [whistle]. They were . . . we almost lost a couple of guys going after some information on a volcano. And they were in deep snow and the wind came up. They, fortunately, had enough sense to dig their way in and sweat it out. But, they had been told to buy heavy equipment on our account as they went through town and they did not do it. They were in what I would call light-weight material.

We did have a couple of incidents that happened. If you look north from . . . oh, Dutch Harbor is a good place, you look across most of Alaska. And we wanted to get an instrument down there to record this during the IGY. Our problem was we didn't have enough budget to station somebody there. We found out that the minister was a ham operator and was fairly knowledgeable about electronics.

(500)

And he agreed to come up here and got permission from his deacon to come up here and go through a week's training on how to set the equipment up and how to check it weekly, etc. which, in fact, he did. And then we went down to help install the thing. Well, "we" was . . . god, what's another name? What's the guy's name? He left here and went to Tasmania and got a Ph.D. Anyhow, let me go on with the story. Maybe it'll jump out. They got the instrument installed and still had a couple of days to go before they could catch a plane out of there, so he says, "Well, why don't we go out and . . . " I guess they were going to go shoot sea lions. This was legal back in those days. And so, he gets them in his boat which is a high powered engine in a smaller boat, and they get about . . . they go out on this island and the guy liked to hand load. He had hand loaded a bunch of shells and so they were shooting and enjoying themselves and it looked like the weather was changing, so they decided they'd better get out of there. In the process, they forgot to pick up the brass off the beach. And when you're a hand loader, that's a sin. And so, they're halfway out, they turn and go back to get the brass, and he drives the bow of this thing into a wave and swamps it. He's got his little kid along with him and our employee, which I can't seem to come up with the name of . . . and so, they get dumped. This was cold water. They're in trouble.
He - the employee - helps get them into life jackets. The boat has got flotation tanks. The bow was sitting up in the air and the motor is dragging it down in the rear and he spends, he thought, 10 or 15 minutes trying to get that damn motor lose so that they could drop it and get in the boat. In the meantime, the guy and his kid have floated away. And so, he turns around and makes for the nearest piece of land, which turns out to be a small island and he gets to the island. It turns out that the beach on the island is lousy with mussels, which are very razor sharp, and he's in the meantime, taken his boots off so he can swim. The only thing that saved his life was that he had been a champion swimmer at college and knew how to pace himself and made it to the beach. Got himself cut up pretty bad getting on the beach. Finally, he came out of it enough to crawl up the shoreline area and there was a cabin up there and a jar full of matches. And he got a fire going, but the wind came up and was blowing the smoke down into the brush on the island and nobody . . . by this time, they were looking for them. And nobody spotted the smoke for some time. In the meantime, he's about to succumb to hypothermia. The minister and his son are a total loss. They finally spotted the smoke and sent somebody out to investigate and got him hauled in.

And he spent a couple of days recovering in the hospital at Anchorage. Now, what's his name?

KB: *I'll switch tapes while you're thinking.*
KB: OK. I had asked you about the military-civilian thing. I wondered if you had any thoughts about it making a difference . . . if you noticed a difference between civilian funded projects versus military.

AG: It depends on how the civilian group is put together. The National Science Foundation brings in people from the scientific community and puts them in jobs within the agency and these jobs consist of reviewing applications for research. And so, whatever your specialty is, you're given all the ones that come in to that area and you read these and talk to these people and make some kind of a report and recommendation for funding or whatever. The military agencies are some department that is responsible for - and whatever "for" happens to be - it may be in a weapons area, it may be something else. And so, then, you as a hired scientist, civilian scientist working for that agency or maybe even a military scientist, there are some Ph.D., bird colonels around the world. And the difference then being as to what you're department is looked upon, viewed as, and involved with, budget review, why are you doing this science? Is it science to keep you employed or is this science because of what you love to do, or is it science that's doing something for the nation? And where does this money come from. What kind of budgets? What kind of volume? Is it under what congressional committee? Is there oversight involved? I don't like the military method because it's got built into it's head that when you're in one of these type positions, you're not developing as an officer unless you are rotated every four years. And so, at Aeromed, we used to, every four years, we spent the first year and a half getting used to the new guy. And he spent another 6 months shaking out all the stuff the previous guy was doing and this guy, because, after all, he's boss now, is saying "This is crap. No good. Throw it out." And then you spend the next two years trying to get this project going and what not. And you just get them so that everybody can figure out how to spell the other guy's name, why, it's time to rotate. And sitting on the sidelines like I was at Aeromed, this is weird. Weird, weird, weird. And you don't see that so much in . . . how this is handled in some of the industry, I don't know, because I wasn't involved in seeing it much.
KB: Did you ever spend any time out in the field?

(50)

AG: Oh, a matter of a few days here and there when the R4D went down at T-3 or 26 miles out from there. I was sent up to Barrow to keep the place running. As I contended, I was sent up to Barrow to run a . . . what do the Irish have? . . . a wake. But, they came back anyhow. Usually it was something like that. Some inspecting group's going through and they want somebody local to be the flunkie to go along. So, I've been out on an icebreaker and watched them break ice because the big German scientist is der and wanted to see how dis machine werked.

KB: OK, do you think you would have ended up doing this same kind of work if you hadn't come to Alaska?

AG: Probably not. Probably not.

KB: Do you think it was a good thing?

AG: Oh, it's been very interesting. I lived in Alaska and watched it change from a territory to a state. I worked at a land grant university of which there are roughly 50 nationwide. I was close enough in management level to sit in on and feed information to back up the President and the Board of Regents and similar type things. It has been a very interesting thing to watch all of these things happen and know that you can pick up the phone and with the proper permission from the local brass, call up one of your congressional offices and ask them if they'll give you a hand on such and such a problem, or you're having trouble with such and such an agency, and here are the details and we'll put the rest of it in the mail to you tomorrow. And it's amazing how fast . . . it can be a week-end and if the senator calls, somebody in DOD
will have an answer back to you in less than 24 hours. Because that's how they're set up to go. There's one DOD man per senator that is on duty every weekend.

KB: *Maybe we can quickly go over the other parts of your career at the university. You mentioned that you did do other things besides the Geophysical Institute.*

AG: Well, I did a similar type of activity for the Comptroller for Research slot and got fed up with that because of internal politics.

KB: *You left your comptroller position because of internal politics.*

AG: I had spent 11 seasons with the federal forest service and most of the university lands are just raw land, so that I knew I could just go out and take a look at some of these things and tell people, this is what we have and this is where it is and what not. And so, the only problem that I had with that was that they were not funding the position. I was myself and one half a secretary and some travel money and the last three years, I was given some development funds.

(100)

Not enough to get anything done. It took me three years to get enough money together to do a subdivision. And then the state chose not to put the subdivision on the market, because that was our method of management. And so, three years of work and money was wasted because the state had gone all greeny and thought that development . . . . my god, that is . . . terrible. So, there I was. I told them good-bye and I quit.

KB: *And that was when?*
AG: '78. And I discovered there was an opening in the pipeline coordinator's office. They needed a land
manager, so I applied and was hired. So, I added 3-1/2 more years to my retirement.

KB: So, you've been retired since 1981?

AG: '81, '82? Someplace along there.

KB: So, what would you say were your biggest accomplishments? We'll end with that question.

AG: I lived through it all.

KB: OK. Is there anything else that I haven't asked you about? You want to be sure to talk about your
career and observations on science.

AG: No. If some of those people hear that I have made an observation on science, they will go cackling
toff, laughing hysterically.

KB: On your role in science.

AG: That's a different one.

KB: Do you have anything to say about your role in science?

AG: No. Not really. Just that I had ideas on what kind of a background a director should have . . .

KB: Do you think that the people who do the administration behind science are appreciated for the work
they do?
AG: Not really because most of them are . . . you're telling somebody that they can't do something and that's not the way it should be run. It's OK to do it, but do it this way, is where you want to be. And a lot of these . . . they demand to run their money and their funds and what they can't get through their head is to go look at who the check is written to. It says University of Alaska. And so, now that I can call you Mr. University, shall we figure out what we're going to do? There should, from time to time, be some little 10 minute briefing given to certain groups to let them know that these are some of the problems when you're traveling on state money, you've got to do it this way.

(150)

You know who Gavorra is?

KB: I know there's a mall named after him.

AG: Mr. Gavorra is a Yugoslav, I believe. A trained economist who was approached and hired by a university department head and because they didn't pay transportation, he shipped his goods and brought his family to Alaska only to find out that the fellow that hired him had no authority to hire him, and so he ended up getting a job as a bag boy in a grocery store and worked his way up to owning three stores. But, that's a shining example of the lack of basic knowledge on how to run something that takes place.

KB: Well, I think that you need to be going someplace, so I think I'll shut it off. Thank you very much.

(End of Tape 3 - Side A)

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End of Interview