BS: This is an oral interview with Lieutenant Clifford Hathaway, United States Navy (Retired), conducted as part of the Polar Oral History Project of the American Polar Society and the Byrd Polar Research Center of The Ohio State University on a grant from the National Science Foundation. The interview was taken at Lieutenant Hathaway's home in Vancouver, Washington, by Brian Shoemaker on the 3rd of May, 2002.

Cliff, this is your interview, and we're interested in what you brought with you to Antarctica. What, basically, made you go to Antarctica and what skills took you there? Everybody has a job, and a background and a desire sometimes, or a reason for doing it. So, we'll start out from there. I'd like to know your background, where you grew up and lead into the Antarctic and then we'll spread the Antarctic part out in detail. And we'll take it to a point afterwards. You've stayed in touch with this, obviously, and why, and that's important as well. But, it's about you and not so much about the Antarctic program, or the Arctic program.

CH: I was born in 1931. I was raised initially on a little farm just north of here - Ridgefield, Washington. My dad had a large farm down there. I helped him a lot on the
farm working with farm equipment, machinery and so forth. And then later, we moved up to Washougal, Washington, and he did custom farm work, primarily. We had the first baler that you could haul around from place to place and do . . . kind of a mobile baling outfit. And like I say, I worked with a lot of equipment. I suppose that had something to do with my interest in working with equipment. I didn't have too much interest in farming, per se. I wasn't much of a farmer, but . . . my brother had been in the Navy during World War II. He was stationed down in California, after World War II was over. He went in the Reserves down there and was working as a station keeper at the Naval Air Station Oakland, California. At any rate, I'd gone to high school in Washougal, and I guess a dislike of farming and other things, I dropped out of high school in the tenth grade . . . after the tenth grade. And initially attempted to join the Army. They wouldn't accept me, however, because of my age, so I went down to California, and my brother managed to get me into the Reserve Program down there as a station keeper. And I worked there as a station keeper for several years. I worked in the control tower and the dispatch office there in the Operations Department. I decided to strike for air control-man, and in fact, at the time, the air control-man rating, per se, did not exist. They had two ratings - a Specialist Y and a Specialist X.

BS: *This was the Navy?*

CH: Navy, yeah. The Specialist Y was the people that worked in the control tower. The Specialist X worked in the dispatch, flight service office. By the time I was ready for 3rd class, however, they came out with the air control-man rating. And I made 3rd class air control-man and was then transferred back to Olathe, Kansas, to Air Traffic Control School there. Shortly after I got back from Air Traffic Control School, this was, I think, in 1949. And not too long after I got back, the Korean War started.
They started bringing a lot of the Reserves and actually some of the retired, I guess as well, and the Reserves that had gotten out after World War II was over . . . bringing them back to active duty and sending them over to Korea. And I received an involuntary extension in the Reserves at that time. I was planning to get out and go back to college. In fact, I was enrolled down at the University of San Francisco. And after this problem with the extension, of course, by that time I had made 1st Class Air Control-man, but I couldn't get promoted because they wouldn't promote you while you were on an extension.

BS: Now, what year was this?

CH: This was in 1951, I think is when I got extended.

BS: You joined . . . ?

CH: I joined in August of 1947, right after I dropped out of school. And by the way, I did get my high school diploma, however, in 1949. I took the examination for that and received my initial notice that I was going to get my diploma prior to the time my class actually graduated - my original class actually graduated from high school. And, in fact, wound up getting my diploma the same year they did. Which is kind of interesting.

At any rate, I made 1st Class which was pending as a result of my temporary status and the extension, so I finally decided I'd go ahead . . . it looked like the Korean War was going to last forever then, and so many people getting called back in for active duty from Reserve or retirement status, I figured I might as well just stay in the Navy. And so, I went ahead and re-enlisted and at that time, I re-enlisted in the regular Navy
rather than in the Reserves. And after I re-enlisted, they sent me over to NAS Kwajalein for the first H-bomb test. And I worked in the tower and the dispatch office over there, flight service office. I worked also as a monitor with the Army, monitoring the aircraft that were returning from these tests, flying into the cloud and bringing back samples and so forth. We had teams that would go in with Geiger counters and monitor the aircraft for radiation - aircraft and crew. And during that time, I got contaminated with radiation. We went into an aircraft that was a little hotter than we thought it was going to be and got contaminated and we came out and they had to destroy all of our clothing and practically scrubbed my skin off getting radiation out of me.

BS: *Dust?*

CH: Yeah, dust. Prior to that turnover there, by the way, I met my wife, Joanne, in 1950. We were married December 16th, 1950. Her father was the Chief Master at Arms there at the NAS Oakland, and my brother worked for him. That's the way I happened to meet her. And I had one son that was born while I was still there. And while I was on Kwajalein, my second son was born about a year later. They was only about 14 months apart. Something like that. So, she was by herself when my son was born, which became kind of a trademark, I think, or something. At any rate, I spent a year on Kwajalein, then transferred back to the States to VR-5 at Moffitt Field, California. At that point, they transferred me temporarily to the Air Station where I worked in the control tower. I was only there for about 6 or 8 months, something like that, and I received orders to GCA School - Ground Controlled Approach which was a sea school at Olathe, Kansas.

(100)

And we both went back there. She stayed with the kids while I was going to school.
Ended the course there at Olathe, Kansas, and from there I was transferred to the GCA Unit - Ground Controlled Approach Unit - which was at Elizabeth City, North Carolina. Actually, the Navy people there were actually assigned or attached to the Naval Air Station Weeksville, but the Coast Guard Unit had been set up down there by (delete). . . the Coast Guard didn't have GCA, so the Navy had sent a GCA Unit down to the Coast Guard Station there so that the Coast Guard would have instrument landing capabilities during their emergency search and rescue work, and so forth.

BS: *This is Elizabeth City, now.*

CH: Yeah, this is Elizabeth City. In fact, we was one of the first . . . I think the only Ground Controlled Approach Unit that had precision approaches to sea lanes. We had, I guess, ten or twelve different approaches there for different runways and sea lane approaches and we actually made precision approaches to the sea lanes with the Coast Guard Units. In addition, we also made GCA approaches with the helicopters and the blimps that they had over Weeksville. Making a GCA approach with a blimp was quite interesting.

BS: *You really could paint it, couldn't you?*

CH: Not only that. It took us about an hour to make the approach. We would cut it down as short as possible, but a two or three-mile final approach and it still took them forever.

BS: *Didn't they come over and stop over a point and let straight down, slowly?*

CH: They were actually practicing to come in and land. It was quite interesting to watch them on the radar scope.
BS: *Now helos, they do a normal approach.*

CH: Well, we made a shorter approach with them because they were a lot slower, particularly jets.

BS: Jets, you've got to do___?

CH: You've got to make a fairly long approach with those, but the helos, we brought them in on a fairly short approach, too. But, that was rather interesting. About the time my tour was up there, I had heard that I was to get transferred to the *USS Coral Sea* in the carrier controlled approach facility which was fairly new at that time. In fact, it was so new that they didn't really use the carrier controlled approach facility much aboard the carriers at that time. And I wasn't really looking forward to spending a tour on the *Coral Sea*, so they had the request come in for experienced GCA operators to go to Deepfreeze, and it sounded like a really interesting . . .

BS: *Did they call it Deep Freeze then?*

CH: Yep, they did. And it sounded very interesting to me, so I volunteered and not only did I volunteer, but Al Gyr and John Marshall. Al Gyr was a 2nd Class air-controlman. I was 1st Class and had just heard I was going to make Chief. In fact, I made Chief on the Ice. And then John Marshall was the 1st Class ET, who was a GCA technician. They needed GCA technicians also. We all three volunteered for Deepfreeze. Al Gyr has since passed away. I'm not sure what happened to John Marshall.

BS: *I'll look on the list. I can call Dick Powers and he's got lots of guys from . . .*
CH: At that time, my wife was about 9 months pregnant with my, later to become my daughter.

(150)

BS: Third child?

CH: Third child. And after I received my orders to Deepfreeze, her parents were living in California, so we made the trek from Elizabeth City, back to California, with her 9 months pregnant in the back seat of the car. The baby was nearly born in Burlington, Iowa, on the way. We had to make an emergency stop there in the hospital and she spent the night and part of the day in the hospital there. And then we took off and drove back to Oakland, California. As it turned out, the baby wasn't born during my leave. So, I had to go up to Davisville, and check in with the Seabees up there prior to the time the baby was born.

BS: When did you check in to the Seabees at Davisville?

CH: I think it was in the . . . I think it was around the middle of July. It was 1955. Somewhere in that neighborhood. I don't remember the exact date. I know the baby was born on August the 3rd and I'd checked in probably a couple of weeks, at least, before she was born.

BS: So you were part of Deepfreeze CB Unit Special?

CH: MCB Special, yeah.
BS: *MCB Special.*

CH: Checked in to Davisville, and went through a lot of psychological testing that they put us through to find out what kind of nut would go down to Deepfreeze and so forth. And I seemed to pass them all, I guess, because I made it. They had, I can't remember now the total number of people that they had in the GCA crew. We had myself, John Cox, Al Gyr, and the technician, John Marshall, in the unit that went to Little America. And I think they had probably one or two more than that that went to McMurdo. I don't remember any of their names. I do remember the GCA officer who was at McMurdo and he was more or less the GCA officer for both facilities, really, was Lieutenant Commander Canham. In fact, he was the only one of the officers that was experienced. They had asked for experienced operators, but they couldn't get enough officers with experience to volunteer. So, they took one of the young officers that was just graduating from GCA school - Lieutenant JG Berglund, I think his name was. And he became the GCA officer at Little America. However, I seen very little of him while I was in Little America. I don't recall what happened to him. Why he wasn't around? I guess he was off flying or something. But, he didn’t winter-over down there and wound up later had an accident while he was moving material around. Both of his arms were crushed under a packing crate.

BS: *In McMurdo, or . . . ?*

CH: At Little America. And it was after the ships had already come out, so he stayed down there for the year until the next spring thaw and when he came back to the States, I understand he had to go through a lot of operations to get . . . the bones had all healed wrong and he went through quite a siege. But, he did stay in the Navy and I understand
he made Captain at least. I know that.

(200)

BS: What was his name again?

CH: Bergland. I don't know what his first name was.

BS: And he was a Lieutenant Commander then.

CH: No, he was Lieutenant JG at Little America.

BS: JG.

CH: He was a real young officer. In fact, he was so young, he had a little problem getting along with some of these old Seabee Chiefs. He had quite a run in with one of the Seabee Chiefs up at Davisville.

BS: And he was in charge of . . . ?

CH: The GCA unit at Little America, supposedly. Although I didn't see much of him when he was down there. Yeah, one day he had a little run-in with one of the old Seabee Chiefs up at Davisville, and I don't recall what the argument was about now, but I remember the Chief told him, "You know, Mr. Bergland, I have a son about your age and I'm just now thinking about letting him use the car at night." That kind of shut him up. But, I guess he learned a lot when he was there with the Seabees. They were quite a different bunch of people, I'll tell you. If I ever had to go to war with anybody, I think I'd
just as soon go with a bunch of Seabees as any other group I can think of.

BS: *They saw more combat than anybody else in the Navy.*

CH: They worked hard.

BS: *More than anybody else in the Navy. They went in ahead of the Marines to Guadalcanal, Tarawa, the swimmers had to get the mines in the water - the Seabee swimmers.*

CH: They worked hard, but they played just as hard too, I'll tell you. They're quite an interesting group of people. The first tour I'd ever done with the Seabees, but I learned to respect them, I'll tell you that.

BS: Yeah.

CH: They could get a job done. While we was up there at Davisville, they ran us through a lot of different training up there, constructing buildings. The aviation personnel that were assigned to the GCA Unit, at least, we'd checked with some of the Seabees up there and made arrangements to get them all trained as Caterpillar drivers. Our equipment was probably the last thing off-loaded from the boat while we was down there, and they needed to get the buildings built and the facilities operating, so they trained people in multiple jobs so they would be able to get the buildings up and running.

BS: *Including the air-controlmen.*

CH: Including the air-controlmen. So, we were taught to build buildings, taught to drive
Caterpillar tractors and a little bit of everything. In addition, of course, we had to take this equipment that we was taking down to the South Pole or down to Little America and McMurdo. Most of it, none of us had seen before. The radar equipment had been developed by the companies that made GCA equipment for the military and for the FAA and none of it had been certified or operational at all by the Navy.

BS: *This was the radars?*

CH: The quad-radar unit. And there was another precision radar unit also that we took down with us.

BS: *You mean it was built just for Deepfreeze?*

CH: The companies that developed it, I think, just had some kind of an idea that a portable ground controlled radar unit would be useful to the military - Marines, especially, and other units that had to go in early in the combat regions and set up equipment to make instrument approaches. They need something that is small and portable and easily moved. And so, they developed this equipment, I think, I'm not absolutely sure, but I believe that this equipment was donated to the Deepfreeze organization to take down there for cold weather evaluation and for basic evaluation as a feasible unit for the type of work that they had planned it for. And so, we had to train on that. Learn to set it up, align it, operate it, and maintain it, and so forth. And we took it out to one of the local outlying fields up there from Quonset Point, and Quonset made arrangements for pilots to come out and make runs for us, so we had a chance to use it a little bit and get familiar with it. And besides that, we designed and built a control tower
for use - two control towers, actually - for use there at Little America and at McMurdo.

BS: So, you built this at Davisville?

CH: We designed it and built it there at Davisville with the help of the Seabees, of course. It was built out of these Clemmons huts panels. We just cut holes out of them for windows and put double-paned Plexiglas windows in them. And we hoped that we had designed it well enough that the windows wouldn't frost over or frost up or freeze up inside between the panes and make it useless.

BS: Had double panes.

CH: Yeah. As it turned out, it worked out pretty good. I heard from one of the fellows out here, in fact, who came back later and he told me that it worked out quite well. Also, while I was there, we had an AT that had previously taught school at Memphis, Tennessee, in the AT school there. And we fortunately had trained him as a GCA technician on the equipment. The reason I say it was a good deal, we later . . . our ET, John Marshall, missed the ship on the way down to the South Pole. We pulled out two days early from New Zealand and he missed the ship there, so we would have had no technician had we not trained this AT as a GCA technician. I don't remember his name to save my soul. I remember he was of American Indian descent and everybody called him Cochise. In fact, I think he was the only AT-1 we had at Little America. If I had the roster of the people who were down there for Deepfreeze I, I could probably find out who he was. (I now remember that his last name was Stockton.)
BS: You have your book?

CH: I have a book on Deepfreeze I, but his name was not listed. They didn't have a roster of names in the book.

BS: You don't have the yearbook - the photo book?

CH: I have the photo book that was put out by the Disney people. They did not have a roster of names of the people that wintered-over at Little America. Just the numbers of people. They had listed the people who worked on the book and a lot of good pictures. In fact, I think there were some pictures of him in the book, but he wasn't named. Most of the rosters I've obtained throughout the Navy have had not only pictures and so forth, but they have a roster of the people who were involved.

BS: They had a yearbook of Deepfreeze I. Is that what you're talking about?

CH: That what I'm talking about.

BS: I didn't know that. I thought it was . . .

CH: There was not a roster in that book. It was a really nice book. Disney did a fantastic job as far as the Disney photographers did a great job of putting it together. It was well documented and well covered.

BS: Lloyd Beebe lives up in Sequim.

CH: Yeah. I'd like to go up and see him.
BS: *He's got 40 bears there, 26 grizzlies. You saw the TV series "Grizzly Adams?"*

CH: Yeah.

BS: *All his bears. Something like about 8 bears.*

CH: Yeah, I knew there was more than one bear.

BS: *And he offered me, when come back, to ride a grizzly. They're all tame. Black bears and he had a polar bear for a while. He did all the Disney original wildlife movies. Neat guy.*

CH: Anyhow, just before we left Davisville, my daughter, my youngest of the three, was born and after 6 weeks check-up, my wife brought her up so I had a chance to see her at Davisville.

BS: *Where was your wife staying?*

CH: She was staying at that time in California. Actually, San Leandro, I think it was where she actually lived. But, she flew up there and brought the baby along and we spent a couple of weeks in a motel up there. Put the baby in a dresser drawer and she enjoyed herself. Of course, I was working at the time too, so we didn't spend too much time together because every day I had to go out and do some kind of work training or something, getting equipment together to go down to the Antarctic.

BS: *So, you got to spend some time with the family.*
CH: Um-hmm.

BS: That's very important.

CH: Oh, yeah.

BS: How'd your wife . . . did she take a train back in those days?

CH: No, she flew both ways. Of course, in those days, it was not jets. In fact, I think she flew . . .

BS: Connies?

CH: Connies, yeah. Same aircraft I flew later on, except that the ones I flew on had a lot of radar hanging off of them.

BS: Yeah, EC 121's?

CH: EC-121s and the WC-121s. While we was at Davisville, in addition to the GCA equipment and the towers that we built there, we also had a lot of navigational equipment - navigational beacons, direction finding equipment. And in addition, we had a lot of other aviation equipment that we was going to be responsible for down there - fire sleds. They had some special fire sleds they had built for crash fire fighting . . . well, actually, both crash fire fighting and aircraft building fires. They used special chemicals. Of
course, water would freeze down there. You couldn't use any water in the mixture at all. You had to use just special dried chemicals for firefighting. And we also had a long-range height finding radar which was shipped down. I think it went ultimately to McMurdo, to Hut Point, and it was mounted on a 4 x 4 truck, Army-type military truck. We pulled it off the truck, checked it out, packed it back up for shipment to the South Pole. Everything up there was marked, by the way, not only for where it was going, but for the order in which it would be off-loaded from the ship. The high priority equipment was marked for first off. The low priority stuff went in the bottom of the ship and there was a special color code system that they had set up for this.

BS: *You say height finding radar. What do you mean by height finding radar? Finding what? The plane?*

CH: It was designed, actually, for aircraft, where you could swing it around in various positions and then it would scan up and down and it was calibrated so that you could see the height of the aircraft with cursors that were on the scope. However, they found out it was a high frequency - about 10 megahertz frequency range. Something like that. The search radar was about 3000 or so kilohertz. And it doesn't pick up weather too well. But, that higher frequency really does a good job of picking up weather and we found out that they can use this as a weather unit. In fact, I don't think you noticed on the TV station here in Portland, Channel 6, I believe it is, you'll see the weather radar that swings around and you'll see the radar displayed on the TV? That is a height finding radar unit. It actually scans up and down, picks up all this weather, and as it runs, of course, it swings around a 360 degree arc as well, but it's scanning up and down at the same time and it's picking up these vertical layers of weather information. And that was very similar to the stuff we took down to Deepfreeze with us, what they're using today for the TV stations.
But, like I say, we checked it out up there at Davisville, and made sure it operated and we knew how to operate it.

BS: \textit{Was this the quad radar?}

CH: No, this was separate, I can't even remember what the designation was. Quad radar was the ground controlled approach radar. We had actually two units. They gave you vertical and . . .

BS: \textit{They give you vertical as well as distance.}

CH: But, it's short range.

BS: \textit{Final glide slope.}

CH: The elevation antenna is good for, well . . . actually, it was long range compared to most of the ground controlled approach radar. Most of the radar - the precision radar - was good for maybe 10, 15 miles, and then you had the search radar in addition to that. You used the vector of the aircraft around to get him in position to vector them down the glide slope to the runway. The quad radar had about a 40 mile range. This weather radar, however, had a range of 250 miles more. I can't recall now what the actual range was, but it was quite a distance.

BS: \textit{But, to the best of your knowledge, this quad radar was the first operational one in the Navy.}
CH: It was. In fact . . .

BS: *They're still around.*

CH: Not . . .

BS: *They were there in the '80s when I was down there.*

CH: They're being . . . they're still down there, but I think now, the ground controlled approach, per se, I belong to the Ground Controlled Approach . . .

BS: *We got the Air Force microwave system. The portable one. That was really an improvement. They got it when I was there.*

CH: Now, they don't use GCA much. They've made the electronics and equipment small enough and with the advent of geo-positioning, GPS and other equipment of that type, they don't really need it. The reason the GCA equipment . . . US Navy, wasn't it? The reason the Navy really took to this GCA equipment is that with the military Navy aircraft having to land aboard the ship, they had, of course, all the extra airframe to support the hook, to stop the aircraft short. They didn't really have . . . and for every pound of equipment you have on the aircraft, of course, you take probably 10 or 20 times that much to increase the airframe to carry it. So, they wanted some way to reduce the weight of the aircraft and rather than install ILS - instrument landing system equipment, which has to be in the airplane, they went to GCA - ground controlled approach.
All you needed was the radio that they have for all the other operations and they could talk back and forth to the ground and the ground could talk them down the glide slope to the runway without having all this extra equipment installed in the aircraft. Since then, of course, equipment's become so light that they don't really use GCA per se. It's used more as a monitoring equipment rather than . . . you know, they don't talk them down the glide slope anymore like we used to do.

BS: *Well, they were doing it when I got out in ’88.*

CH: Yeah, probably. Just recently they've quit that.

BS: *I was using GPS for my Zodiac in the Antarctic. I get fogged, I couldn't find that ship without it.*

CH: It was an interesting job. In fact, there was probably only about . . . well, right now, in this ground controlled approach - the old GCA Organization I belong to, is primarily retired people. We also accept people that are air traffic controllers. They still have air traffic controllers, of course. But, they have records of only about a thousand or so that they've got records of their addresses and names, and so forth. I think we've only got about two or three hundred members, but in the entire Navy, I don't think they've ever had more than just a few thousand GCA, ground control approaches.

BS: *Well, you were talking about getting color-coded equipment, and loading it aboard ship in the right order so that you could get it off in the reverse order. Right?*

CH: Um-hmm.
BS: *So, how'd that work out?*

CH: It worked out great. It really worked out good.

BS: *They really knew what they were doing. Did you help load the ship?*

CH: No.

BS: *Who loaded the ship? Stevedores?*

CH: Stevedores loaded the ship.

BS: *Was it a NAVCHAP group? Navy Cargo Handling and . . .*

CH: I didn't watch much of the ship loading because we was so busy getting it packaged up, marked and checked out and a lot of it, of course, we had to repack and rebox it up again after we checked it out. And we was so busy there at Davisville, I didn't get down to the dockside to depart until the ship was loaded.

(500)

I think, if I recall, the ship was totally loaded when we got down to dockside to board it.

BS: *What was the name of the ship?*

CH: *USS Arneb* was the one I rode down. That was the flagship for Rear Admiral Dufek.
And I don't recall the exact date we left. It was in November sometime.

BS: *It loaded at Davisville, and went from where?*

CH: We went from Davisville to Norfolk and actually pulled out of Norfolk on our way to New Zealand on November the 14th. Prior to our departure from Norfolk, of course, they had a big formal send-off there. Twenty-odd flag officers and other dignitaries, of course, gave speeches and so forth.

BS: *Was this an old ship or new ship?*

CH: Old ship. It, god, it had been in World War II.

BS: *Rebuilt though.*

CH: Rebuilt some. It was quite an old ship and the *Arneb* and *Wyandot* were both AKAs. I believe, if I remember correctly, the *Arneb* was AKA-56. I can't remember the *Wyandot*. And then they had to enlist . . . they had more cargo than they expected, so they pulled in the AK . . . I can't remember what it was called now . . . but, it the *Greenville Victory* was the name of the ship. It was kind of like an AK, but they had . . . TAK, I think, is what it was called. And I'm not sure exactly how they . . .

BS: *That was the USS Greenville Victory?*

CH: Well, I'm not sure.

BS: *Or USNS?*
CH: USNS, I believe.

BS: Yeah. Pretty sure it was.

CH: Yeah. But, they had to pull that in to help haul the cargo down there. In fact, the Arneb and the Greenville Victory both berthed at Little America and then the Wyandot and . . .

(550)

BS: And they all went direct to Little America or did they stop at . . . ?

CH: We stopped very, very briefly at McMurdo. You could actually see the Mt. Erebus in the background, but we was off shore there a little ways. So, you couldn't really see a whole heck of a lot.

BS: So, anyway, I'm going to back you up. I got you ahead there. I apologize for that. You left Norfolk.

CH: Left Norfolk, went down through the Panama Canal which was rather interesting. The first time I'd ever traversed the Panama Canal.

BS: Glacier along with you?

CH: Glacier was ahead of us. Actually, they had things kind of spread out there. They sent two icebreakers, the Glacier and the . . . I can't remember the name of the other ship.
Eastwind, maybe?

BS: Eastwind. I'm pretty sure it was the Eastwind.

CH: They sent those two down ahead and because each of those was going to be towing a YOG that they used for fuel barges down there. They actually froze them into the ice down there and used them for fuel tanks.

BS: Left them there.

CH: And they were towing these ships, so it was going to take them a while to get there. They'd be pretty slow going compared to the other ships, so they sent them ahead. And so, the only two ships that went through the Canal together, I believe, was . . . . three ships, was the Arneb, Wyandot, and Greenville Victory. They were pretty much together.

(End of Tape 1 - Side A)

(Begin Tape 1 - Side B)

(000)

CH: After we departed the Panama Canal area, we went on down toward New Zealand. On the way, had our Thanksgiving dinner. We had been underway for several days before Thanksgiving, as I recall, and not too long after the Thanksgiving meal, then, we crossed the Equator and had the additional shellback initiation or pollywog initiation, whichever you want to call it. In fact, on our ship, Rear Admiral Dufek actually played King
Neptune during the initiation.

BS: *Dufek rode the Arneb*?

CH: He rode the *Arneb* until we approached the ice pack on the way from New Zealand into Antarctica.

BS: *So, he rode it across the Pacific*.

CH: He rode the thing all the way across. In fact, the night before our initiation, one of the pollywogs hauled down his flag and substituted for it a pair of women's red undies.

BS: *So, Dufek . . . didn't you say he played a part in this initiation*?

CH: Oh, yeah. He was King Neptune. They had a couple of crusty old Chiefs there that played the other positions. The Royal Baby, etc. But, he was actually King Neptune during the initiation, which turned out to be rather interesting in a . . .sort of a way. I had a chance to play the other side of this, a few years later on the *Ranger*, however, and was a shellback and managed to play the other part against the pollywogs. That was rather interesting.

BS: *So, you became a shellback on the trip*.

CH: Became a shellback on the *Arneb*.

BS: *Still got your card*?
CH: I've still got my card someplace. In fact, I still have the large certificate someplace too, I can't recall where it's at. I'm sure it's rolled up someplace though. In fact, during that one trip, I became a shellback. Of course, I had already crossed the 180th, and they had that deal, and crossed the Antarctic . .

BS: Circle.

CH: Circle. Round the dreaded Cape Horn and learned to spit to windward. Just about all the old traditional and Navy certificates you could get in that one trip. All except the one for crossing the Arctic Circle. I did do that later on, but it was not aboard a ship. I was airborne, so it didn't count, I guess.

BS: Doesn't count. No.

CH: But, that was kind of an interesting tour all the way around. During the trip down, we got pretty heavy weather. It got rough on the Arneb, but the icebreakers don't have much of a keel on them. They have a round bottom and I mean, they can almost roll in a calm sea alongside the pier. And during the trip down, we got word back from one of the icebreakers that it was taking a 56 degree roll which, I mean, that must have been terrifying. So, the two icebreakers . . . and by the way, that wasn't the Eastwind. That was the Edisto. The Edisto was the other icebreaker and the Edisto and the Glacier both made port, or was ready to enter port at Port Littleton, well before the time that the Arneb got there. So, they sent a message back to Rear Admiral Dufek requesting that they be able to enter port early. I remember, we air control-men, the GCA operators, worked at CIC at the time, so we had a kind of an inside deal to what was going on. CIC was just off the bridge. And we heard this message come in and Rear Admiral Dufek sent the reply back with only a reference to Matthew 19:30, nothing else.
Just the reference Matthew 19:30. Well, when you look in the Bible at Matthew 19:30, it says, "The first shall be last, and the last shall be first." Needless to say, the Arneb entered port first at Port Littleton and the Glacier and Edisto entered later. I thought that was rather cool of the Admiral, though, that he sent that message back. Anyway, we had a fantastic welcome at Christchurch. The first ships that had been in Christchurch at Port Littleton down there since World War II, and the docks and the whole city was . . . Port Littleton is a very small village, really, and that area was just loaded with people. Just wall to wall people on the pier and everywhere. And we took the train . . . at that time, they didn't have the tunnel for the cars from Port Littleton to Christchurch. Just the train ran through it. So, we took the train in to Christchurch and spent most of the time at Christchurch when we was there. The wintering-over party had just about unlimited liberty opportunities there in Christchurch. In fact, that's how John Marshall happened to miss the ship coming out. People invited us out to their homes for dinner and he got invited out on a deer hunting trip and was out in the mountains somewhere hunting deer when the word came out that we was leaving two days early. They publicized it on the radio and everything, but he didn't get it. If he did, he probably couldn't have gotten back anyhow. He was too far out in the boondocks to get back. But, everybody else managed to make the ship. And we got underway two days early for Antarctica.

And during the transit through the pack ice into the Ross Sea, I remember the ships were all trailing off behind each other with the Glacier in the lead and the Arneb following. And Admiral Dufek was aboard the Glacier. He had moved aboard the Glacier during the transit into the Ross Sea.

BS: Do you remember the date you left New Zealand?
CH: I don't recall off hand. I do remember that we got . . . we actually entered the Ross Sea on Christmas Day. And it didn't take us all that long, although we did spend some time . . . en route down there, now, all the ships kind of strung out and provided navigational and rescue facilities, I guess, for the aircraft that were going to be flying in. And it turned out, they had a couple of R4Ds and two, I think they were SA-16s or something . . . they were an amphibious type . . .

BS: *Ufs?*

CH: *Ufs!*

BS: *Um-hum. Didn't make it.*

CH: None of those made it. They got out part way and they ran into a little headwind.

BS: *120 knot.*

CH: And they couldn't stand much of a headwind at all. They had a tailwind to start with. They felt pretty good about it, but they got out part way and ran into a headwind and had to turn around and go back. The other aircraft didn’t make it on through and as soon as they got through, we pulled out and started heading for the Ross Sea. And during the transit through the pack ice, the *Glacier* was apparently really a new ship and had just been commissioned before we went down. And I mean, that thing had some capabilities. I mean it was unbelievable. And they was chugging along through that pack ice like there was nothing there. Just thrashing through it. Didn't slow down a bit. They must have been doing 10-12 knots all the time through the ice. And during that time, every time the ships
would kind of straggle behind a little bit, Admiral Dufek would get on the radio and just
chastise all those captains and officers on the deck that were following us, trying to get
them to close the line back up.

(100)

Well, he was afraid that . . . it didn't take long for the ice to flow back in behind the
icebreaker and he was afraid that the ships following it would either get iced in or
damaged from the large chunks of ice that had drifted back into the area. At any rate, not
too long . . . probably about the day before we hit the Ross Sea, the Glacier suddenly hit
some very thick ice and slowed down to probably about 2 or 3 knots and we was closing
that gap rapidly, because he'd been squawking about getting the captains behind us to
close up the line so they'd been keeping a pretty close distance between the ships. And
when the Glacier slowed down, it looked like it was just about twice as big as it had been
before. You could see the Glacier just coming up into view real quick. And everybody
yelled, "All astern full," you know, and the ships would sit there and shudder, and
bounced up and down and felt like it was falling apart, just about. And just before we
came into contact with the Glacier, they got slowed up enough and the Glacier, by that
time, had broken through and was picking up a little speed and we could see the distance
start picking up a little bit again. So, everybody kind of heaved a sigh of relief and added
power on again and started through. But, I think that's the last we heard of Admiral Dufek
chastising the skippers behind for not keeping the gap closed up.

But, we entered the Ross Sea, broke out into just beautiful open water, no ice.
And I think that was on Christmas morning, I think it was, or Christmas Eve. Anyhow, it
was around Christmas time we came into the open sea. We proceeded from there on
through to McMurdo where the Wyandot broke off and the Edisto and some of the other
Nespelen, all of them, stayed there. We hung around for a little while. Seemed to me
like, if I recall, Admiral Dufek actually made a trip into the camp there - the old Scott camp - before he came back in and we went on through toward Little America.

BS: *Did he stay on the Glacier?*

CH: He did stay on the *Glacier* for a time then. Actually, he stayed there until we got to Canaan Bay.

BS: *Where was Admiral Byrd? Which ship was he on?*

CH: Admiral Byrd came in later. I can't remember. I think he may have flown in and then he left on the *Arneb*, I believe, when the *Arneb* went back.

BS: I think he went in on the *Glacier*. I know he went in on one of the ships because Lloyd Beebe was with him.

CH: Come to think of it, the *Glacier*, I think, did pull out and go back to pick up some mail or some darn thing and I think he came in then. I didn't see anything of Admiral Byrd until the day they were performing the commissioning ceremonies there at Little America, and he did come in then. In fact, he was dressed in some of the equipment that he wore down there on one of his earlier expeditions and . . . quite an interesting gentleman. He talked to everybody and shook hands, but he did look rather sickly at that time . . . rather frail. But, he was there during the commissioning ceremonies at Little America.

(150)
I think they took him in by helicopter to some of his old campsites there, too. They were, of course, buried under 40 feet of snow, or something like that, but they could still see some of the transmitting towers and some of the things that indicated where the site was, but you couldn't actually get into the sites.

BS: *I took you ahead on that. You're still sailing in there.*

CH: Yeah. During the trip from Hut Point over to Little America, Canaan Bay there, we did pass by what I thought at the time was quite a huge iceberg. It was probably several miles long and about 300 feet or so sticking out of the water and a few times that below. It was quite impressive. Pretty good sized iceberg, but I can't imagine what one of those icebergs that they've reported recently on TV the size of Rhode Island or something like that . . . they must be really impressive because that was quite an impressive sight, I thought.

BS: *They actually found a bigger one in 1956. The biggest one reported was 250 miles long, during that second, Deepfreeze II.*

CH: Yeah, huge. Well, in fact, Little America, the entire campsite there broke off and floated away with everything in it, I guess.

BS: *Oh yeah.*

CH: I don't recall when that happened.

BS: *That site probably broke off several times since that time. OK. Here you are, you're still steaming to Little America.*
CH: Well, we arrived at Little America . . . let's see, I don't remember what the date was, but it wasn't too long after Christmas, I know that. I think it was around the 29th of December, when we arrived at Canaan Bay. They had one of the M boats they lowered over the side from Arneb and hauled the crew of people into the ice to do some surveying and took a bunch of trail flags to lay out a trail from there up to where they . . . they had to actually find a route up to where they could go to the Little America Station. They actually hadn't picked out an exact location for that. So, they had to plot a route that would take them across the bay ice, up the side of the shelf ice onto the plateau above where they could find a level area to build Little America Station. And, of course, en route, they had to also check for any crevasses. If they had them . . . in fact, they did find a couple of crevasses which they bridged over and filled in during the surveying of the road. And in the meantime, the Glacier started trying to chisel away enough of the bay ice to provide a berth for the Greenville Victory and Arneb so they could tie up to the ice. There was a lot of rather thin, loose ice near the edge. And of course, they had to chisel a way back through that. And that was a really spectacular operation to observe. I had an opportunity to go aboard the Glacier briefly down there and it was a really nice looking ship. Brand spanking new. Everything was nice and neat and the bridge was quite impressive.

(200)

Unlike most ships, rather than ring up the speed and so forth to the engine room and have them operate all the controls for the engine, the Glacier was kind of like a big, huge aircraft with throttles and everything. All the engines were controlled right from the bridge. They weren't necessarily controlled there at all times, but during the ice breaking operations, those engines were controlled from the bridge.
BS: Did they have one up in the nest?

CH: Beg your pardon?

BS: Did they have one up in the crow's nest? A set of controls?

CH: I don't know whether they had anything up there. I didn't get up that far, but . . .

BS: They do now.

CH: But, on the bridge, they did.

BS: They do now on icebreakers because you can see up there.

CH: Yeah. But, anyhow, they would back off from the ice and then when they drove the . . . those were all steam turbine engines. They sound like huge aircraft with after burners taking off and they would just howl when they threw the power on. And initially the ship would just kind of sit there and bounce up and down and then all of a sudden, it would start moving and they'd crash into the ice. Must have been doing 10, 12 knots or better when they'd hit the ice and they'd ride up on it and keep going full power until they got up as far as they could go and the thing would stall out on the ice. And then they would keep the engines full speed ahead until the props had washed away all the ice behind them, all the broken pieces of ice and so forth behind them. They had to be washed well away from the ship because when they started reversing, the props were rather vulnerable to damage from the ice, so they'd keep it up on the ice there just full speed ahead until that ice was all washed away. And then they would reverse, back down, and in some
cases they would stay up there long enough to get kind of frozen in a little bit. So, they had the capability of actually shifting ballast back and forth, to actually make that ship rock and if that wasn't enough, the whole crew would get out on deck and run back and forth so they could rock this thing off. In some cases, I guess, they had to actually get out and dynamite some of the ice to get away, but I didn't see that happen at Little America. But, I did see them doing a lot of shifting ballast and running back and forth to get that thing off the ice. They would back off then and take another shot at it and I believe it was 30, 36 hours or something like that, they worked constantly with that ship chewing up the ice down there in Canaan Bay. I didn't spend any time on the Glacier while they was actually doing the ice breaking operation, but I can't imagine what it would be like to have been aboard that thing. I mean, the noise and the lurching back and forth and all the rolling around. I don't see how anybody could have gotten any sleep, for sure, or how they could have eaten or gone to the head or anything else. I mean, it must have been a horrendous . . . just hanging on all the time. But, it was quite a fascinating thing to watch. But, after about 30, 36 hours, they had the berth there, all chewed out of the bay ice and the Greenville Victory and the Arneb both were tied up alongside and they started off-loading equipment.

Of course, the first thing off the ship was the big Caterpillars and sleds. They had a large four-wheel drive forklift that they used to help load the sleds. They used the cranes from the ship to swing the stuff over to the ice, and then they planned to use it to lift the equipment back onto the sleds. As it turned out, initially, this forklift didn't work. They dropped it over the side onto the snow and tried to operate it and it would just set there and kind of bury itself in the snow. All four wheels turning and nothing happening. It was just like sugar and stuff.
BS:  *One of those inventions that somebody thought of up north that had probably never seen snow in his life.*

CH:  Yes. They had also brought a jeep down there - a jeep with chains on all four wheels. It never did anything. I don't know what ever happened to it. I think they must have put it back aboard ship after a while because it never did work, even after they got the snow cleared off of the ice. To make this thing work, they did come out with Caterpillars and these huge rollers and they shoveled the snow away with the blades and then rolled it down compact with the rollers. The rollers were huge things. They were so big that, I guess they created enough heat that it warmed that snow up enough to where they could compact it. Normally, you couldn't make a snowball there if you tried. It was just too dry. You 'd try to pack a snowball and it would just fall apart again. Even after you warmed up your hands a little bit, it still wouldn't pack down. But, they managed to get that snow packed down enough to make this forklift work.

And the aviation personnel that had been trained on Cat driving all were assigned Caterpillars and sleds and started hauling supplies back and forth from the ships to the Little America. By that time, they had the road pretty well set up. The crevasses were filled and the road was marked with trail flags. By the way, these trail flags, while we was on the ship on the way down to New Zealand, we spent many, many hours when we weren’t on watch up in radar and CIC, we was splitting bamboo and making trail flags. I never seen so many trail flags in my life. Made bundles of those things. And it seemed like that was a never-ending task, to make trail flags.

BS:  *Did they use them all up, I wonder?*

CH:  Oh, I would imagine. That trip from Little America to Byrd Land, must have used a
horrendous amount of trail flags. That was quite a trip. And, of course, we used a lot of them around there, too. The reason for the trail flags, in a white out down there . . . it's kind of like a fog. Actually, it was different than fog.

(300)

As the lower clouds gathered, the sun would kind of penetrate through those clouds and reflect off the snow back to the clouds and back to the snow again and eventually you had no comprehension of your position. It's like . . . it would give you vertigo to walk in it.

BS: *No shadows.*

CH: No shadows at all. All the ruts from the Caterpillars moving around and so forth. You could step off in one of those things and just about fall flat on your face. It's like going upstairs at night and not realizing you was at the top step or not counting the steps correctly and you'd just about fall down. That was just about what it was like walking in those whiteouts. And it gave you a very eerie feeling. You kind of had vertigo as you walked around through that stuff, like walking inside of a milk bottle or something. It was kind of strange. But, you could . . . in the white out, these flags were real bright colored and if they weren't too far apart, you could see the flags pretty well.

You couldn't see any shadows on the ground and so forth in getting from one flag to the next, but as you was walking, you might fall down several times. But, you could see the flag in the distance and get there if it wasn't too far away. And those became necessary a few times down there, too, while we was driving back and forth in these big Caterpillars, hauling the sleds back and forth between the shore and Little America. The distance from the ships to where they finally decided to build the Little America station was, I would guess, around somewhere between 3 and 5 miles. I don't know exactly how far it was. It
was probably a good mile or better from where the ship was located to where we actually started up the . . .

BS: *Slope.*

CH: Slope onto the shelf ice.

BS: *What's the difference between shelf ice and the lower ice?*

CH: Well, the bay ice is basically a lot like . . . it's fairly thin. Probably, I suppose . . . 
well, actually if you really go out toward the edge, but they had broken it off to where it was about 12 feet thick or so where the ships were actually tied up.

BS: *But, it's exposed to sea water.*

CH: It's basically all frozen sea water. The shelf ice is glacier type ice that's come sliding down and eventually will break off from glaciers.

BS: *From inland, yeah.*

CH: And it's quite a height difference between the shelf ice and the bay ice, too.

BS: *So, actually, you unloaded onto the bay ice and then towed everything up or carried it up onto the ice shelf.*

CH: Yep. Took it up about a mile onto the ice shelf and then there was quite a steep grade going up from there up to where you got to the top of the ice shelf. In fact, they had
some kind of little ridges that ran down and they would kind of chisel the road out of the
side of these ridges so you could get up to the higher elevations.

(350)

And the road wasn't actually very wide. Our sleds were about 12 feet wide and it was
almost impossible for two sleds to pass each other in part of that area going up onto the
shelf. Really narrow road. Of course, down on the bay ice or once you got up above
where you were on the open shelf ice, it was level enough snow there that you could just
pass each other anyplace you wanted to as long as you didn't run into a crevasse in the
process, of course. But, the road going up the side of that mountain was pretty
treacherous. At any rate, we spent, I guess some of them worked for quite a few weeks
there, driving the Caterpillars on the trip back and forth. I actually worked hauling sleds
back and forth with loads of supplies for a couple weeks or so, I guess.

BS:  *You drove a Cat?*

CH:  Yeah, I drove the D8 Cats.

BS:  *Air control-men duty.*

CH:  Yeah, air control-man duty. GCA equipment. Although, I had had a little experience
driving heavy equipment because our GCA equipment was all mobile, you know. And
they were large diesel trucks to haul those things around. The early ones that we had, we
hauled them back and forth off the runway every night. And if they had an approach,
we'd drive out there, drive onto the driving line and line the radar up and make the
approach and then drive the trailer back in. And I don't know what the weight of that was.
the system. I had a Navy driver's license rated at 28 tons, or something like that, in that range. Maybe 38 tons, I don't know. It was quite a bit.

BS: *They didn't care down there, though, did they?*

CH: No. But, it did kind of prepare me for driving some of that heavy equipment. It kind or prepared me some for operating heavy machinery down there. I'd operated diesel generators and diesel equipment with a GCA unit.

BS: *How about when you were towing a load of sleds?*

CH: It was kind of interesting. The sleds weighed 10 tons themselves, just the runners and the beds of the sleds and everything were 10 tons. The tongues were huge. Must have been probably 8 inches in diameter round steel tubing of some sort. Must have been an inch or so thick walls with a big I in the end of it, welded in.

And there's no way one person could lift one of these things. If you wanted to hook up to a sled, you either had to get some help with people to lift that thing up so you could back up and poke it into your latch on the back of the tractor, or later we learned how to use the . . . they all had cable winches on the back and we could drop the winch down, latch around the tongue and then you could pull the tongue up a little bit with the winch and kind of jingle the winch and the tractor back and forth until you could get that thing lined up perfectly to latch the hook onto your hitch. And it was quite a tricky job getting that thing hooked up to the winch. It worked better if you had a few people to raise it up and direct you back because you couldn't see over this winch very well to start with from the
cab of the tractor. The cabs were really large on these Cats, by the way. They had a little catwalk around on both sides. You could get out of the . . . the cabs were heated with I think they had Southwind heaters or something like that. They were really . . . you could heat them up and get pretty hot. And, of course, you drove with the doors latched open most of the time.

BS: *Heat with diesel fuel in them?*

CH: I think they used gasoline Southwind heaters in them, if I remember right. In fact, the little pony engines on them . . . they used the pony engines . . . small gasoline engine, to turn the diesel engine over and get it revved up to when you would start firing the diesel . . . fairly good-sized little engine, too. Gasoline. But, they used both gas and diesel. Gas for the small pony engine and diesel, of course, for the main Caterpillar engine. But, these cabs were . . . you could walk around in them. Walk around and get out on the catwalk outside and walk around where you can see your load. Of course, the Cat only moved 2 or 3 knots, something like that. So, it wasn't a big thing. It kind of drove itself, almost. If you wanted to get out and walk around the catwalk to see what was going on, you could just leave the Cat go and let it drive itself pretty much while you was checking the load.

BS: *You wouldn't want to fall off the front end though.*

CH: You wouldn't want to fall off of it, no. But, at any rate, I was coming back to the ship one day and this is a rather strange little story about one of the GCA operators - Al Gyr. I was on my way back with two empty sleds and we had had a pretty good white out condition.
Plus, in addition to that, they had shifted the road slightly to line things up better with the bridged over crevasse just before you left the bay ice on the way up the shelf. And somehow or another, either because of the white out or maybe even falling asleep or something . . . we worked horrendous hours down there . . . it was supposed to be 12 on and 12 off. I don't know, but anyways, we worked 12 on and 12 off. Most likely it was at least 16 or better on and a few catnaps on the way, the time you were off.

At any rate, I was coming down. Just got onto the bay ice and I looked over and here's Al Gyr - I didn't know it was his tractor at this time - but he's nosed down on the bay ice into a crevasse. The only thing that saved him from going on through was the fact that his blade was high enough that it pitched across to the other side and caught the ice on the opposite side of the crevasse. It was only about 10-12 feet wide. And his blade caught on the other side. It was kind of angled down through the ice, too, so it was in a pretty good position for him to get caught, if you are going to get caught at all. But, I'll never forget his face when I pulled up behind him to haul him out of that crevasse. He had the most ashen complexion and the most terrified expression you've ever seen. And so I pulled up behind him. I hooked him on to my sled and yanked him out of the crevasse, and he was on his way to haul sleds up to Little America.

BS:  *Was he hooked on to sleds behind him?*

CH:  He had two full sleds behind him. I had two empty ones behind me.

BS:  *He was going the other way.*

CH:  He was headed up towards Little America and I was heading back towards the ship,
so I just pulled in behind him and we had some chains that we hooked on to this, or I
hooked on with my winch. I winched the winch back across the sleds onto his tail-end
sled. I was afraid to get too close. I was afraid, you know, the whole darn thing was going
to break off and go into the bay. So, I got as close as I could. In fact, I had backed right
up to the tail end of his back sled. He, of course, was 50 feet or so further. The two sleds
were quite long and he was probably 50 feet further nosed down into this crevasse, and so
I winched him out and got him back on the road and headed up to Little America.

(500)

He was sure relieved, I'll tell you, because if I remember right, this was just shortly after
we'd heard that Williams had gone through the ice at McMurdo and drowned. Killed
himself. The tractor and all went right through the ice.

BS: Apparently Charlie Bevelaqua was riding on the catwalk next to him. He went
through too. He popped up and Williams didn't.

CH: Yeah, I heard. But, that was quite a terrifying experience, I'm sure, for Al Gyr. And
then a few days later, I was coming back down empty again and there was another sled
ahead of me that was headed down empty and about the time we came around the turn,
we could see coming up the side of the road that was chiseled out of the side of the
glacier up toward the top of the shelf ice, comes a tractor with two full sleds and there's
not enough room to pass us. So, the guy ahead of me . . . I actually had enough room, I
could get just barely off the trail. And the guy ahead of me, though. He pulled over as far
as he could get and the guy coming up the hill couldn't quite get by. Well, actually, the
tractor got by, but in the process of trying to get by with the sleds, he pulled over so far,
the two sleds swung sideways down the hill and he's still on the road, going along, and
the two sleds are hanging down there beside him, just hanging down the hill, full, and he's dragging them along the side of the hill. And I thought, boy, this is going to be a tough situation. So, I swung off of my tractor, swung down the hill because I was empty anyhow. I figured I was in pretty good shape, so I swung down the hill. No roads had ever been built down there, just down through the snow. Swung around and pushed my blade up against his sleds and shoved them back up onto the road so he could proceed on up to Little America.

(550)

And I really didn't think too much of it. It turned out to be a pretty easy task and I guess, it must have been about a week later or pretty close, I came by there and low and behold, this crevasse had opened up, it had been bridged over with ice and snow and all of this caved in and my tracks were about 5 feet from the edge of this crevasse. If I had swung about 5 feet wider, that would have been good-bye. I'd been down at the bottom of the crevasse. And that was kind of unnerving when I finally had seen what had happened there. It didn't scare me too much at the time, but it sure scared me afterwards.

The trips back and forth were kind of long and boring, really. Just tractor roaring along hour after hour. After the first one, it became a kind of a boring trip. But, the first trip I remember I took up was rather exciting. Just after you got up onto the top of the shelf ice, there was another really steep downgrade and then back up the other side. There was a big kind of a gully there that was, oh, probably a couple of hundred feet down. Maybe 150 feet or so. And at the bottom of this steep hill was a crevasse that they had bridged over and filled in with a narrow bridge. The bridge was about, probably 20 feet wide, I guess. It was fairly narrow. Once you got down there with the tractor and the sleds, it wasn't any much wider than the two sleds, so you had to be pretty accurate to get to the bridge at the bottom of this hill. And with a Caterpillar tractor, when you're going
on level ground, uphill, or whatever, you have a control for a right turn - you pull the clutch on the right side and that stops that track from moving.

(600)

The left track keeps digging in and pulling ahead so you turn to the right. If you want to turn sharply to the right, you not only pull the clutch, you put on the right brake and completely stop that right hand side.

(End of Tape 1 - Side B)

_____________________________________________________

(Begin Tape 2 - Side A)

(000)

BS: This is Tape 2-A of Lieutenant Hathaway's discourse on unloading and tractor driving at Little America in 1955 and early 1956.

CH: At any rate, unlike driving a car where you just turn the steering wheel and you're at the mercy of the front wheels for how short you can turn, with a Caterpillar, you can totally stop the track on one side by pulling back the clutch, stopping the power to that track and then braking that track, but the track on the opposite side keeps running and you can actually rotate that thing right around in a circle on one track. And it's kind of interesting to drive one of the things. The difference, however, in going downhill, you have, in our case, somewhere near 200 tons of equipment pushing behind you. Anyhow, when you're going downhill in a tractor with all that load pushing behind, if you happen
to pull the clutch on the right hand side, no power is applied to that side from the engine, but the load behind starts pushing that ahead and instead of turning to the right when you pull the right clutch, that track races ahead and you actually wind up going to the left. So, everything is backwards from what you would normally expect. And imagine my surprise when I discovered this on my first trip down this steep hill toward this little narrow bridge at the bottom, across the crevasse. I pulled the right hand side and all of a sudden went left and I was headed for the crevasse rather than the bridge. Anyhow, I finally got it sorted out before I got to the crevasse rather than the bridge. Anyhow, I finally got back over and hit the bridge not quite center, but fairly close. I managed to get across it, at any rate. And I learned a new problem with driving Caterpillars that I hadn't learned while we was at Davisville.

At any rate, later I was assigned to a D8 Caterpillar that had a rather large boom attached to the rear end of it. It still had all the other rest of the equipment, the cable winch, and so forth, but it had this boom attached there as well and the winch actually was rigged up through the boom and you controlled the winch from the Caterpillar. And so, I got to where I was being assigned to a lot of other little jobs besides driving back and forth to the ship. When they would bring heavy equipment up that needed to be off-loaded, for instance, they brought up a number of Caterpillar diesel generators - huge things - that were used to provide power for Little America and when they brought those up on the sleds, I would go around then and hook on to them and position them on the platform that they had designed for them to run on when they was providing power.

BS: *This was all about January, '56. Somewhere in there?*

CH: Yeah, this is early January.

BS: *Does it get warm then? I mean warm, in comparison?*
CH: Well, in comparison, yeah, but . . .

BS: *Light jackets?*

CH: Well, our equipment or our clothing that they had assigned down there at that time - I guess there's quite a difference now - but, we were assigned clothing that you had your standard socks and thermal underwear - waffle-weave type thermal underwear - then you wore, usually, these thick Army OD pants on top of that with the Army OD shirts which were quite warm.

(50)

Then, they had a suit that we wore over that. It looked kind of like the aviation poopy suits that we wore when I was flying later on. I can't remember what they called the things now, but they were a lighter weight.

BS: *Sort of like a flight suit?*

CH: No. It had padding in the middle. Some kind of double nylon with some kind of a thinner padded material. It was fairly light weight, though. And then, if it really got cold and you know, where you were going to be out in the weather a lot, over the top of that, then, you had this real heavy nylon outerwear you put on which was totally . . . that stuff was waterproof, too. And so, there wasn't a lot of air circulation through those. You'd get pretty warm if you was out doing a lot of work in those. We didn't wear that most outer pants much. We did wear the outer jacket quite a bit. It was the one that had the great big parka-type deal on the thing. I guess they don't use the same ones down there now, or the same type.
BS: They had them made in New Zealand.

CH: They were really nice units. Nice things. And then we wore the thermal boots. They had a number of different thermal boots that they had down there. They had the ones that were pumped up with air. Some of them were sealed with air in them, double insulation.

BS: Bunny boots.

CH: Some of them actually had a little deal on the side like a normal car tire, you know, and you'd pump air into them. The ones I liked real well and I wore a lot down there for a while until they were damaged by some work I was doing, were felt - really thick felt - and god, they were light weight and warm as toast. Really nice. And then they had some mukluks that were just like the old Eskimo type mukluks - the leather with padding in between of some kind. You laced them up your leg and they were light weight also. I had a pair of them. I used to wear them around the shack when I got back to go to sleep occasionally. But, I didn't wear them out on the job. The felt ones, I wore a lot and they were fantastic in the normal snow because there was no moisture. The snow was just dry powder, but because I drove this Caterpillar tractor with the boom on it, I was assigned to help this guy from Chicago Bridge and Iron that was down there to build the fuel tanks. They built one at Little America and it was a rather large one. It was probably in the neighborhood of 30 feet or so across and about probably 12 feet tall. Something like that. And I helped him - a guy by the name of Rauch. He worked for Chicago Bridge and Iron and actually, the Navy contracted for these civilians to come down and build the tanks because they had to guarantee that they would be leak free. And the only way they would guarantee that was if their welders actually did the welding on them. And that was a rather interesting operation. Of course, we just built them out on the snow. No place, you
know, to lay the things down, so we found a bunch of packing crates and laid out packing crates and got them leveled up enough to where it looked like it would pretty well support the base of this tank, and then we laid out the panels.

(100)

It was like putting a jigsaw puzzle together. These were kind of strange. I would have kind of thought that cutting those panels would have been rather straight forward but, God, they were strange shaped things. And this guy, of course, he had all the plans and stuff and he knew how everything went together. He'd go out there and sort out some kind of a weird looking shaped piece of steel and he'd pick it up and bring it over and I'd pick it up and take it over there and he had another Seabee welder that helped part of the time during most of the base construction. And they would wrestle the thing around while I was moving it into position and get it laid down. And then they would wedge these things together with what looked like nuts. In fact, if I'm not mistaken, I believe they were nuts. The things were actually threaded inside, too. They originally had probably been used for some kind of other purpose and they decided that was a good thing to use for wedging. And they would weld these things to the plates, anyway, one on each side. And drive this big pin through them so it would pull the plates together solidly so that they could lay a good clean bead down to weld them together. If they had a big gap in there, of course, it wouldn't hold. So, they would wedge these plates together real tightly before they welded it. And, of course, nobody did welding on this thing except Ed Raush. . . well, one of the Seabee welders did a little welding and I did a little dab up on the roof because there was no big concern over that leaking like it was on the bottom and sides. But, I did operate a chipping hammer a lot down there, chiseling these nuts off the plates after they'd gotten through welding the plates. And I worked on that for, I don't know, it was quite a long time. Must have been a couple of weeks, I'd guess, that we
worked on that fuel tank. And, of course, we worked supposedly 12 hours on and 12 off. We worked probably more like 18 hours on and 6 off, or so. Sometimes even less than that, I think. It was 20 on and 4 off. But, during that time, also, we was trying to get our radar equipment set up and get the aviation facilities installed - the runway laid out and the buildings that we was going to use for our shops and the tower and things like that set up. And a lot of times, I would work there with him throughout the normal working day, so to speak, and then I would jump in a Weasel and drive out to the air facility there and help set up equipment out there.

BS: *This is your equipment.*

CH: Our equipment.

BS: *That's towards the end. It was last off, you say?*

CH: Yeah, it was the last off, but it did get off fairly early in the process. I was surprised. We found it up there quite early. In fact, I think the way we got it, the tractor train that was to go out from Little America out to Byrd Station left, I think it was about the 14th of January when they actually departed Little America. And about the time they left for Byrd Station, they had some Otter pilots come in and they was doing a lot of flying out of there. Flying back and forth supporting this tractor train.

BS: *When did it leave?*

CH: 14th of January, is when they actually pulled out - the day they pulled out from Little America.
BS: *Who were the Otter pilots?*

(150)

CH: Oh, golly. They had a number of them down there.

BS: *Bob Stretch?*

CH: Bob Stretch was one. In fact, at the time, we used to talk with them a lot. They had their Otter parked kind of on the route that we took from Little America, out to where the aviation facilities were ultimately built. By the way, Little America, actually, was built on a knoll. It had a big gully all the way around it and the day they commissioned that station, Admiral Byrd and Dufek and a lot of other dignitaries from the Task Force and of course, Commander Whitney was the CO of Little America, and all these people were out there. They started arguing a little bit about this location for the campsite.

BS: *Now, when was this?*

CH: This was early in January.

BS: *They hadn't built anything yet?*

CH: They had tents. Everything was . . . they didn't have actually that many tents up there even. We had a lot of cargo that had already been hauled up and dumped around the site, but there wasn't much of anything other than a tent. I remember they had a flagpole there which they raised for the commissioning ceremony.
BS: *When was that?*

CH: I can find that here. I've got it in my notes someplace. It was early January, I'm almost sure. January the 4th, was when they actually had the commissioning ceremony.

BS: *And that's when you first saw Admiral Byrd?*

CH: That's the first time I ever met Admiral Byrd.

BS: *Did everybody get to meet him?*

CH: Yeah, I did. Very nice guy to talk with. Down to earth. He was a lot older and more frail than I expected him to be. But, then again, he was getting along in years at that time, too.

BS: *66.*

CH: And he was wearing some of the equipment that he'd worn on some of his previous explorations down there. He had on a different type of clothing than anyone else there at Little America did. Everybody else was wearing the traditional Deepfreeze-type equipment, but he had this equipment of his own that he'd worn down there previously. I presume that was primarily for the photographer's benefit. Disney had photographers down there. Everywhere you turned there was a photographer taking a picture of something, and they had photographers out taking pictures of this commissioning ceremony.

BS: *How come they used the National Geographic flag to commission it?*
CH: Well, they had the American flag there, too.

BS: *Oh, they did. You see the PAO picture had Dufek and Byrd with the National Geographic flag.*

CH: Yeah, but the actual commissioning ceremony that they had where everybody was lined up saluting the flag, that was the American flag.

BS: *OK.*

CH: And Byrd and Dufek and other people gave little speeches and so forth. And that was an American flag.

BS: *Fourth of January.*

CH: Yeah. But, it was kind of interesting how they chose this site location. Of course, the equipment was scattered all over this knoll up there to start with. So, they was arguing whether they should pick all of this equipment up and move it further out where they had a large level area to make a runway or what to do about it. And in the argument, discussion, whatever you want to call it, Chief Moss - George Moss, who was the surveyor of this organization - became rather perturbed and he finally got angry about the argument and discussion between Admiral Byrd and Dufek, even Whitney and everybody else around there trying to decide where this Little America site was going to be.

(200)
He finally grabbed a trail flag and just threw the thing down in the snow and said, "This is the corner of the first building." And that's how the Little America site was located. So, it was a pretty poor location surrounded by this big gully. You couldn't have put a runway there if you tried. So, our runway wound up being located about a mile and a half, two miles further out on the shelf ice. So, it was quite a little drive out there to the runway. And on our way back and forth between the aviation facilities there and the Little America site . . .

BS: Was it further inland, the aviation facilities?

CH: Yeah. We would pass by where the helicopters had their little hut down there . . . tent, I think it was if I remember right. I think they actually put a building up there for them. We would stop by there sometimes and shoot the bull with them and quite a bit when they later had the tragedy down there, or accident. But, I can't remember a lot of those pilot's names. They had, I can say several there.

BS: I only knew Bob Stretch. I've interviewed him. He's since died.

CH: Bob Stretch. Oh, did he? I didn't know that.

BS: Yeah, he had a long bout with ___ cancer. A lot of operations. Kept him going for 6 or 7 years and he flew to the end. He had his own plane. He had a Cessna.

CH: But anyhow, after they started operating these Otters back and forth, one day I think it was during our . . . most of the GCA crew there worked pretty much the same shift and we were all in one of the huts there having a little confab about putting our equipment up
or maybe we was taking a nap, I can't recall now what happened. But, I remember somebody rushed into the hut screaming that Commander Whitney needed somebody out there. Wanted all the GCA people out there real quick. So, we ran out and god, we was in the middle of a white out that you wouldn't believe. It was just socked in solid. And Commander Whitney is talking to these Otter pilots on a little portable radio he had and so we went up to find out what was going on and all of a sudden he jabbed this microphone in somebody's face. I don't remember who he'd given it to to start with.

BS: *Otter pilot was airborne?*

CH: Yeah, Otter pilot was airborne, coming back from a flight out to the trial party, I believe. And he was flying back and forth overhead. You couldn't see him. He couldn't see us. Commander Whitney was talking to him and when we walked up, Commander Whitney jabbed this microphone in someone's face and said, "Talk this pilot down." Well, I guess he'd read somewhere that we talked pilots down in bad weather. He figured we could talk him down in any circumstances. Didn't need radar or anything to use. That we'd just talk him down with some magical process. And we had been after him for quite some time because we knew people were going to run into this kind of problem. And we had asked him for permission to get our equipment set up out there.

BS: *So, your equipment wasn't set up. And this guy's airborne.*

CH: We had been doing a little bit of work out there, trying to haul things out, but we had never even found our GCA equipment at that time.

BS: *So, you're busy...*
CH: We're busy trying to get things organized and getting the runways laid out, and so forth.

BS: *The pilots couldn't wait for you to...* 

CH: No, they couldn't wait. Commander Whitney didn't want to...

BS: *You're close to the water.*

CH: He wouldn't let us do anything because he expected, you know, the buildings come first. Get the facilities for the crew that's going to be wintering-over down there up. The heck with the aviation facilities. They don't need to be done. So, we had been arguing with him about probably getting into problems like this and needing the navigational aids, and so forth, that we had, plus the radar to help them in bad weather. Well, Commander Whitney finally... this guy passed overhead about the time we was arguing back and forth about getting this equipment... that we needed radar to talk him down. He got to talking to the pilot again and the pilot passed overhead about that time and god, it sounded like he was about head level. I mean I thought he was going to hit some of our equipment. And Commander Whitney says, you just passed overhead. Well, I guess the pilot either accidentally or purposely, you know, took off some power and got down and hit the snow and made a safe landing. He didn't actually know he was on the snow until he actually touched down. At any rate, Commander Whitney took full credit for talking this pilot down in bad weather. He was a premiere air traffic controller.

BS: *Well, that pilot was smart if he had just passed overhead. He knew it was flat. The*
The next pass might have been out over the ocean.

CH: He knew exactly where the place was that they had been landing and he was heading right toward it when he passed over head. He knew where he was at. And I think he just hauled off power and gradually descended until he hit the snow. And then turned around and taxied back, picked up the buildings and parked it.

BS: What about Commander Whitney?

CH: In his little episode, talking the airplane down.

BS: Yeah.

CH: Anyhow, after this little incident . . . up to that time, we had not been given permission to work on the aviation equipment at all. Now, we had all been doing it. We'd work our normal 12 plus hours or whatever it was on our shift. And then we would work another 6-8 hours out on our aviation equipment, trying to get it set up, get the runway laid out, and after that time, then, he did give us permission to work on it. However, we still worked our standard 12 hour shifts, and in many cases, more than 12 hours.

BS: I would think those pilots might have had something to say to him.

CH: I would imagine they did. I know we did get a lot of support afterwards. They even sent some of the Seabee builders and others out to help us. And we got quite a bit accomplished. But, about the same time I was working on this fuel tank, and it was getting fairly close to the time for the Nespelen to come in and pump fuel into the fuel tank and we still hadn't completed it. So, they got really eager to get that fuel tank
finished. And about that time, we was putting the roof on and the roof wasn't super critical for leakage purposes.

(300)

I mean, it was a little thinner steel. It was easier to put together. And, in fact, rather than using these big nuts to wedge these seams together, I would just walk down the one plate over the top of another one and they also had steel beams and so forth inside, and I would walk the upper plate down and hold it tight with my foot while the welder did the welding. He was a fantastic welder, too. God, he was good. He would flip a welding rod into the darn thing and it would just disappear as he would weld the seam.

BS: One motion, huh?

CH: Yeah, just one motion. You'd look back and it would be just a perfect bead. I mean, god, he was really fantastic. Anyhow, he kept getting down and because there was a big rush to get this thing finished, he kept going down and turning up the power on his welding machine and it got to the point where I think if he hesitated or hiccupped, he'd have burned a hole right through the roof of that thing. I mean, it was, like I say, thinner metal. About a quarter inch thick. But, he was really laying the beads down on that thing. I mean, we worked for 36 hours straight out there and finished that tank up so the Nespelen could pump the fuel. And he was kneeling down on the thing just throwing one rod after another into the thing. Just amazing to watch him work. But, anyhow, we wound up finishing the tank.

BS: How big was the tank?
CH: I'm not exactly sure how many gallons that thing held. It was about 30 foot wide and probably three panels high, I think it was, so three times probably about 4 foot sheets. It was a pretty good size.

BS: Twelve feet high then, about.

CH: Something like that.

BS: Round?

CH: Round, yeah. In fact, I was really surprised. All those jig-saw sheets of metal I seen out there, to see it materialize into this nice perfect round tank was kind of spectacular, amazing. But, we got it finished on time. In fact, we was actually finished with the tank a little before the Nespelen actually arrived to pump the fuel. They had, I don't know how many pumps. They had a number of pump stations between the edge of the ice up across the shelf ice to Little America and every few hundred yards, they would have an intermediate pump station with a big Wisconsin engine driven pump that would boost the fuel on its way. And they'd laid all this hose and set up all these pump stations while we was finishing up the tank and by the time we had the tank finished, they was ready to pump fuel. And before they pumped the fuel in, though, they got the Caterpillar tractors out and pushed snow up all around it so that the tank itself was almost buried in the snow.

In fact, they did the same thing to the buildings. After they got through building the buildings and building the tunnel-like structure down between the buildings that we used for getting back and forth, they pushed snow up all around this thing to hold it in place in
case of a real heavy wind storm. At any rate, we finished the tank and they pumped the
fuel. Filled it up and a day or two later, the *Nespelen* was on it's way. But, the whole
operation turned out to be rather interesting. I was rather surprised. I'd never done
anything like that before in my life, but it was quite an experience.

BS: *Or since, I guess, huh? So, you finally got to work on the equipment. I mean on the
aviation equipment?*

CH: Well, yeah. Like I say, about that time, the tractor train to Byrd Land was well on its
way and the Otters were making almost daily flights back and forth in support of the
tractor train. Tractor train ran into quite a lot of problems. They would get into an area
where they'd have a lot of crevasses all around them and then they'd have to backtrack 40
miles or so and pick another route to get around through the thing. And the Otters were
out there helping them plot these trails. Their crevasse detector . . . they had these
crevasse detectors were a deal they had on a little sled runner way out ahead and it would
have some kind of transducer device which would send a signal down into the snow and
back to another transducer that was back on the equipment there that they was pushing it
with. And it was kind of like, from what I gather, it worked a little bit on the order of
these fish finders that they use on boats now or something. It was an ultrasonic transducer
type equipment to send a signal down into the ice and echo it back and when there was a
void there, of course, they could detect that. And it worked pretty good when it was
working, but you know, equipment down there in that cold environment didn't work too
well all the time. And I think the ice detectors they had with them on the trail probably
malfunctioned more than functioned. So, they had some real problems out there
detecting. A lot of it was old poles they ran down in the snow to check to see if it was a
crevasse there underneath. And that was pretty dangerous. They'd tether a couple of guys
together with a big rope and the lead guy would go out there and poke around in the snow
to see if there was a crevasse underneath. If you fell through the guy was tethered to would be able to drag him back. And it was pretty crude. I suppose today they would have a lot better equipment for that kind of thing.

(400)

BS: *Not really.*

CH: What?

BS: *They've got this radioactive sounder now that's . . .*

CH: They've even got radar now, though, that they can detect things . . . they've been sending radar signals that are lower frequency than our radar we was using. They'd send signals down and they can echo back and get pretty good resolution as to what's going on.

BS: *Well, I lost . . . didn't lose a Herc, I had one taxi into a crevasse. But, basically we were always worried about landing in the field and hitting a crevasse, particularly if the ski went right down into the crevasse. We used to drag the skis, but as it turned out that's a false thing because when you go across real fast, you don't go into a crevasse. You go along real slow when you're taxiing and it's vibrating like mad, you cave these things in. So, I looked into it then and experimented with some of the stuff that the geophysics groups were using. And they've never really got anything that works really good. They've got something that goes along slow, drug behind a snowmobile mount. It probably would work for a tractor train.*

CH: Behind.
BS: Yeah. They . . . this is a scientific one, now. They're profiling the . . . all the way. The ground and the rock and back up and that would show crevasses, but it wasn't designed for it. And the Germans have that down there, so I was trying to get something like that on an aircraft. If they could fly over, drag their skis, this is where we want to land, then you fly down your ski tracks and see if you get a void with this thing. Well, I don't think they've done it yet.

CH: I was thinking that with all this stuff they have with submarine warfare equipment and things like that that they would probably be able to drop something down there and . . .

BS: The Air Force taxied into a crevasse two years ago same as mine and got it out and they decided they weren't going to be doing any open field landings. And that's how it stands right now. Navy chanced it. We went for years and never lost an aircraft doing this except for the one I had and I got it out and it's flying again today. But, I say I, I had a great Chief down there that could do anything. If I told him to walk on water, he'd walk on water.

CH: I've seen a few of those.

BS: Yeah. Butch Badger was his name. We gave him a meritorious service medal for that.

CH: But, anyhow, I think we finished that tank on January the 26th. And the Nespelen actually started discharging about the next day or so. And they finished their discharge of fuel on the 30th of January. So, it was a pretty smooth operation.
Like I said earlier, though, the tractor train for Byrd Land started on the 14th and on the 18th of January, the \textit{Arneb}, which had previously departed briefly, brought back an Otter ... I think it picked up the Otter from over at the Hut Point.

BS: \textit{Was this the second Otter? You already had . . .?}

CH: Had one there and they brought another one in. I think there was one was flown in and then they hauled one in. And that was the 18th they brought that one in. And by that time, most of the bay ice had broken up and floated off to sea, or a lot of it had.

BS: \textit{Now, you had your facilities built by about when?}

CH: Oh, probably around the first part of February. There was an awful lot of it done. I know that the cooks operated out of a tent for a long time and god, they did a fabulous job of preparing food and everything to feed all those people up there just operating out of a tent like they were. And they moved into their actual, ultimately what would become their building facilities with the cook house. They moved into that thing, I think, in probably early January - first couple weeks of January. And then they operated, they had all their equipment set up in the building there and they could turn out really good meals then. In fact, all the food we had there was great. A lot of it was dehydrated. The potatoes, you know they had these little square cube potatoes about maybe an 1/8th of an inch square cubes that are all frozen and they could break those things out and cook them up just about any way you could think of. They'd have hash brown potatoes made out of those things for breakfast in the morning with eggs and bacon and the whole shooting
match.

(500)

Really good food. And those cook did a great job keeping coffee going all the time. Everybody had to have their cup of coffee, of course, particularly when they came in with a new load of equipment from the ships or whatever . . . the first thing they'd do was grab a cup of coffee. Cooks did a fabulous job. Anyhow, some of that bay ice had broken off by the 18th when they came in and dropped that Otter off. And about that same time, they were expecting a storm to come through the area. So, the Arneb dropped off most of the cargo that it had at that time. Just dropped it off on the ice to get rid of it. And at any rate, they had quite a work party set up to get all this equipment hauled off the ice before it broke up and get it up to Little America. Everybody worked around the clock for another 36 hours or so getting all this equipment off the ice. And shortly after that little escapade, they gave us a day and a half off - supposedly a day and a half off. I'm not too sure how many managed to get a day and a half out of it, but they had a lot of games people could play and softball on the snow down there and whatnot.

BS: Play tackle football?

CH: Football, you name it. And they had a big . . . one of the ships, I think it was the Greenville Victory, brought a big barbecue thing and they had cooked seal. And I had my first seal meat steak down there. And I'll tell you. I was amazed.

(550)

That is pretty good. Not at all fishy tasting like you would expect. In fact, I thought it
tasted an awful lot like bear meat. Real bright reddish looking color to it. In fact, even when they cooked it, it still had a kind of reddish tinge to it. Not like blood red. It was just red meat. Real bright red meat.

BS: *The seals supposedly way back were related to bears.*

CH: Well, it tasted an awful lot like bear meat to me.

BS: *They moved to the sea and then evolved to a bear. They have a big mouth about the size.*

CH: That may be the reason. I never realized that, but . . . yeah, you're right. They do look somewhat like a bear. But, I've had bear meat before. In fact, we used to hunt it quite a bit when I was living at home. Deer hunting, bear hunting, whatever. And a lot of wild game I've eaten and I thought it tasted a lot like bear. It was really quite tasty. Much, much better than I expected. I thought it would taste really fishy tasting. But, it was good. Also, about that time, I had made Chief.

BS: *When did you make Chief?*

CH: I can't remember the exact date I was supposed to have made it. I think it was the first of January if I'm not badly mistaken. But, the actual initiation . . .

BS: *What was your rate? ATC?*

CH: ACC – Air-Controlman First Class and I made Air-Controlman Chief while I was there.
BS: *Were you the first to get promoted on the Ice?*

CH: First to be promoted to Chief on the Ice.

BS: *Ever, huh?*

CH: Ever.

BS: *First one to become an Antarctic CPO. Have an initiation?*

CH: Yeah. In fact, the initiation wound up coming up at this time while we had our day and a half, so-called time off, I got a notice from the *Arneb* to report back for my initiation.

BS: *On the Arneb.*

CH: On the *Arneb*. So, I reported back to the *Arneb*. Went down to the Chief's Club and they had the traditional Chief's hog trough and eating out of the hog trough sans utensils or the use of hands and so forth and they got a picture of that, in fact, in the book that we brought - Disney got it in there.

BS: *Get branded?*

CH: Yeah, the whole shooting match.

BS: *Kangaroo court?*
CH: Yeah. But, it wasn't quite as elaborate as some of the . . .

(End of Tape 2 - Side A)

(Begin Tape 2 - Side B)

(000)

BS: OK, initiation on the Arneb.

CH: Anyhow, after this little quick short break that we had down there, we finished getting this equipment off the ice that the Arneb had dumped out there and in fact, we got it off just in time, too. The storm did come in and really broke the ice up. Most of it just totally broke off.

BS: Took out all of the sea ice.

CH: Just about all of the ice was gone.

BS: Mid-January?

CH: Yeah, this was I think toward the end of January. Actually, the last unloading of the Arneb was actually completed on the 23rd. I can't remember whether that . . . some of the unloading, I think, was actually done to the edge of the shelf ice where they actually pulled up right next to the edge of the shelf ice and loaded it up off on the shelf ice.
BS: *Your pictures showed that today.*

CH: But, I know there was some that was off-loaded after . . . a lot of the bay ice had broken off and floated out. They still came in and in fact, when they came back in that time, the icebreaker didn't have to break it up or anything. It was just a perfect area for the ship to pull in and start off-loading. By this time, we was really putting in an extra effort to get this aviation equipment installed because we wanted to definitely get the navigational aid, the beacon, set up so that the aircraft would have something to home in on when they was coming back. And probably to get our . . .

BS: *Did they use ADF?*

CH: And, preferably to get our ground controlled approach radar set up enough to where we could make an approach with them if needed. We also had a radio direction finder system we sent down there that was controlled from the ground. We'd had a rotating goniometer-type antenna that would pick up signals and get a bearing on it. We used that later for trying to fix the positions of this crew that went down in an Otter. But, at any rate, we was putting a lot of hours out in addition to doing our other work helping the Seabees build the buildings and set up the various pieces of equipment there, and hauling supplies up from the ship, etc. At any rate, we found our quad radar, took it out on one of the sleds and by that time, we had a lot of the supplies already hauled up from the ship, so some of the sleds were being freed up. So, we just took it out there on a sled and parked it along the runway and left it on the sled so we'd have a platform to level it up and align it and set it up for approaches. And we hadn't yet set up our control tower in the building that we required to mount the indicators, so we put the indicator in a tent. Well, to provide some support for the indicator - this indicator, by the way, was probably 16 - 18
inches square, about 5-1/2 feet tall and it actually came in two pieces. You stacked them up together, one on top of the other one. And the scope you used for making the approaches was in the upper section of this indicator. And so, we got some plywood, probably about . . . it wasn't really that heavy of plywood, probably 3/16ths of an inch or something like that, pretty flimsy stuff, but we laid it out on the snow and then built this tent over the top of it.

We installed the indicator inside the tent, then, and tied it to the center pole of the tent. The tent had a center pole and then we were staying out there sometimes, so we'd work on the thing for hours at a time out there and then drive back in the Weasel. We also had down there these little gasoline Yukon stoves. The stove is a little tin camp thing. It's not very big. You take one of these 5 gallon gasoline cans they use for Jeeps, you know, and turn it upside down and run a little hose down to this thing and light it on fire and it heats real good. It's got a little chimney like affair that you stick up in the air there to vent the fumes out. We had this set up under one flap of the tent so it would give us some heat in there for a little better working conditions. We also set up a couple of cots in there so we could catch a nap or two once in a while, you know, with all these long hours we were working. And this guy, this AT I was talking about, this technician and I was working out there. This guy was called Cochise, and we spent quite a long time out there on this thing and finally got just so dog tired that we just said we need to take a nap, so we both crawled into our Arctic sleeping bags on the little cots and left the Yukon stove running. In fact, we left the radar indicator running also. The radar indicator had a fan on the top. It sucked air in from the bottom and up through the top and out through a vent in the top of the indicator unit. And we laid down and had barely gone off to sleep when all of a sudden it felt like the world was coming to an end. We both fell down into this great big
huge pit along with the indicator that was leaning in kind of a precarious angle. The Yukon stove came in with us along with the gas can which sprung a leak and spilled gas all over and it all caught on fire. And I'm telling you, you talk about two terrified guys for a second there, that was the most rude awakening I think I've ever had in my life.

BS: Where were you when you fell into this?

CH: In this tent.

BS: Oh, in the tent and the bottom fell out.

CH: Well, what had happened, this indicator was sucking hot air out of this Yukon stove, blowing it out the top and it would flowed down on the inside of the tent underneath this plywood that we had for a base and it started melting the snow underneath this plywood and there was about a three or four foot cavity down there that we just tumbled into in the middle of the night. Yukon stove, both of us, the indicator - the whole shooting match came tumbling down into this great big huge pit.

BS: Of course, you say the middle of the night . . . it was still . . . the sun was still up 24 hours a day.

CH: Well, in the middle of our nap, I'll put it that way. The sun was still up 24 hours a day.

BS: Well, you're lucky you didn't burn up huh?

CH: We had these little fire extinguishers, these little chemical fire extinguishers and we
had those handy and grabbed those real quick and put out the fire and it went out pretty easily even though there was gasoline down there burning. It was cold enough, I guess, that the gas didn't really get ignited all that well to heat up and get the plywood on fire or anything.

(100)

And the big thing we was concerned about was this radar indicator. But, it was still tied to the dad-gum tent pole, hanging over at about a 45 degree angle and the thing weighs several hundred pounds, the whole indicator assembly, you know. It's pretty heavy. So, the two of us wrestled this thing back on the level. We got a piece of plywood back up on the level and put this indicator back on top of that and finally got everything saved pretty well. But, it was quite an exciting night, I'll tell you that. It had been an exciting nap, I'll put it that way. But, I'll never forget that one. The guys that came out later on to continue helping us with setting up the equipment, they got a big kick out of it. They teased the heck out of us. That was really exciting.

At any rate, they was making a lot of flights back and forth at that time to support the trail party. And we was putting in double time out there, working on this equipment - the navigational aids. When we set that thing up, we found out that they didn't have crystals. The crystals weren't sent down with it or were lost somewhere or misplaced somewhere . . . the one that they used to tune the equipment, so we had a little problem tuning it up to maximum power. We did . . . the technicians managed to get the thing up and running and operating under reduced power conditions, but it would have been effective for a pilot needing to get in.

I don't remember what date it was that the trail party was supposed to be removed. It was fairly late in the month. In fact, I think it was February. Yeah, it was February the 3rd. The Otter had gone out to pick up some of the people on the trail party and bring
them back and in fact, Beebe, as you recall, was with the trail party or he went out with the Otter. And he stayed to get some good pictures. They could only bring back part of the trail party with the Otter, so he stayed there and let some of the other people in the trail party come back with the Otter. And I understand that his wife had gotten notification during that time that he was lost with the aircraft. And as it turned out, he wasn't even on the aircraft.

BS: *I got that from him.*

CH: Oh, did you?

BS: *Yes. He came back to Little America and they said, "What are you doing here? You're supposed to be lost." You were there, I guess.*

CH: But anyhow, the aircraft wound up missing and then it really came a high speed effort to get everything going down there because they had several aircraft they had brought in there to help with the search. Unfortunately, the search didn't go too well. The weather wasn't cooperative. It was fairly good weather from Little America out to the trail party along the trail. In fact, operational procedures had actually specified that the pilots fly back along the trail on their way back. But, navigation down in that area, as you well know, being a pilot, was kind of hectic. They was supposed to use grid navigation with the grid charts and all that stuff and none of the pilots liked it too well. Didn't work worth a darn.

BS: *That's right. It worked OK if you had a navigator with you, but for just a pilot. . .*

CH: Well, it worked OK, I suppose, if you had the proper equipment to use with it. You
know, those pre-sensing astro-compasses and so forth that allow you to fly a great circle route directly back.

(150)

BS: *But, you needed a navigator on a navigation table.*

CH: I don't think any of the Otters had astro-compasses installed. A few of the aircraft down there did, but I'm sure the Otters didn't.

BS: *I had to use it in a helicopter. It was crazy. We didn't do it. Made sure that old ADF worked.*

CH: So, anyhow, the ADF wasn't available. So, what they would do was they would use their standard old gyro compass and they'd pick a route back that they knew for sure would be to one side or the other of Little America, where they was going, fly till they hit the coastline, and then knowing on which side they was, they'd make the turn and fly down the coastline until they got to Little America and land. Well, in this particular case, this Otter that crashed evidently, I think he ran into a storm to start with, picked up some icing and had a lot of wind blow him a little further . . . he was flying back from the South Pole toward Little America and had his course set up pretty much to the right. He figured on hitting the coast line to the right and turn left back to Little America.

BS: *Deliberate error.*

CH: So, anyhow, he got blown quite a ways off course. Oh, he was close to 100 miles up the coast from Little America when he ran into the mountain. It was pretty mountainous
terrain in that area, too. And as it turned out, he didn't even realize he was gonna hit snow. He was full power and ice built up and everything. He hit the snow and he was in a gradual upgrade, fortunately, and the airplane was just along on its skis and then all of a sudden hit a fairly sheer rise and at that point, the prop hit and bent the prop and stalled the engine and they was stranded.

But, at any rate, they sent the search party from Little America out to the trail party and everybody, I think all the big wigs were kind of assuming that they had flown according to operational procedures and had flown the trail back to Little America, so they were directing the search effort and so they were directing the search planes to go out and fly this route to the trail party. And, of course, the pilots that were doing the searching and the GCA crew, we were out there talking to them a lot about it, and we all knew that they probably hadn't flown in that direction. But, unfortunately the weather wasn't too good either, except along the trail. So, they was concentrating the search in that respect primarily because of the weather. Later, when the weather did clear up and they found it, of course, they found them exactly where we expected them to be. But, while they was doing the search along the trail, the GCA crew ran out and found our direction finding equipment, took it out there, and set it up near where the radar was and quickly orientated the antenna to where we had it set up to where we could measure some bearings on the thing accurately, and started searching through the band for any kind of SOS or message that these people that were out there in aircraft might send. And while we was searching through the band, all of a sudden we picked up this strange sound . . . sounded not like an SOS or standard message you'd expect, but sort of a dah, dah - like one dash after another.

(200)

And we couldn't figure out what it was, but we took a bearing on it. Low and behold, the
bearing was right where we expected the aircraft to have been had it flown the more circuitous route back that they normally did. So, we quickly jumped in the Weasel. The Weasel was there and drove down to where the pilots had their little tent down there and reported to them what we'd found. They plotted it out on the chart and sure enough, this bearing pointed right up to where we expected the airplane to be. Unfortunately, the weather was still pretty bad up in that area. They couldn't send a search plane up there. I think it was the next day or perhaps a couple of days. I think it was the next day, though, they managed to find a break in the weather and send a aircraft out there and almost exactly where we had the bearings set up, they found the aircraft.

BS:  *So, it was right where you guessed it would fly.*

CH:  Yeah, and also right where our bearing had pointed. Because we were plotting from this direction finding equipment we had set up. So, the first one to spot the wreckage was an Otter pilot and I believe, if I'm not badly mistaken, I have his name written down here someplace. Don Sullivan, I think, is the guy that actually found the wreckage. And found no sign of life or anything. Of course, he was flying an Otter and couldn't land. So, he sent a message back to the base and that made people feel pretty bad because they figured the entire crew had been killed there. But, then Lieutenant Commander Larsen flew up there with a helicopter and landed and he discovered then that the crew had actually started walking back toward Little America. It seems that they stayed there with the wreckage for a day or two, and then Chief Moss, George Moss, who was the surveyor, had his equipment on the aircraft. He took some sun-shots and plotted their position. Found out where they were located and decided, my god, they'll never look up here for us. So, we'd better start back. And so, they started walking back. They had a little canvas sled like that was loaded up with whatever food supplies and things like that they had. And they started walking back to Little America. And in fact, Larsen followed the trail
for about half the distance to Little America. They made it almost half way. That's 7 days or something like that . . .

BS: *He went out and followed the trail.*

CH: He followed the trail that they had taken.

BS: *Did he find them?*

CH: He found them and they had made it back about half way to the base, dragging this sled behind them.

BS: *Stretch said they finally saw seals and they were heading for seals and they were going to kill one.*

(250)

CH: Yeah, they was trying to find wildlife all the way along so they could get some food of some sort, but they managed to make it half-way back or very close to half-way. At any rate, this all happened the same day. The Otter discovered them and Lieutenant Commander Larsen went out in a helicopter and found them, brought them back later that day.

The funny part about it was the we went back out then and was checking the direction finding equipment we'd used for this bearing. And in doing some experimenting and more accurately lining up the antennas and getting things organized a little bit, we discovered the signal we'd taken our bearing on was actually our radar equipment. There wasn't a bearing on that crashed Otter at all, but a bearing on our own radar. The bearing
was almost right exactly where the aircraft was found. I don't think any of the GCA air-
controlmen ever told a sole about that either. We had told the pilots about the bearing
eventually and they plotted it and everything looked good, but when we found out that
the bearing was bogus, nobody ever said anything. We just kept quiet.

BS: *I wonder if Dian Bellanger knows this. You don't mind if I tell her, do you?*

CH: No. Not now.

BS: *I'll call her and tell her. You say you had a JG was the air control officer?*

CH: Yeah, he was supposed to be the GCA officer, but we never seen a whole lot of him.
I don't know . . .

BS: *Right out of school.*

CH: Right out of school.

BS: *No experience.*

CH: Type guy, yeah. He was later injured down there. After the ships pulled out, he had
his arms crushed and stayed the winter though and came back and had a lot of surgery.
Ultimately, I heard he made captain. I don't know whether he got any further than that.
But, he made captain, I understood. And he stayed in until he retired.

BS: *And what was his name?*
CH: Berglund. We called him Bergie, behind his back, that is. It may have been B-e-r-g-l-a-n-d. I'm not too sure of the spelling.

BS: *Was he involved in the decisions on this search or did you guys do it? You were the senior enlisted.*

CH: I was the senior enlisted and I think I did all of the coordinating of the GCA crew, and the aviation crew that was out trying to get things organized and the equipment set up and operating and so forth. I don't recall seeing him once at that time. One time, Lieutenant Commanded Canham flew back in from McMurdo, and visited our location briefly and we talked with him. He was pretty supportive of what the whole crew was doing and how things were going along. But, he was there just a short time, turned around and left. Went back to McMurdo. It's been a long time and I don't remember too much about Bergie.

I think, if I recall, he was there the day that Commander Whitney so-called talked this plane down, and I think he was one that kind of interfered for us there with Commander Whitney, when he was chastising us all for not being able to talk this aircraft down without any equipment to work with. I don't know how he expected us to talk that guy down with no radar or anything like that, but he was insistent as hell. He shoved this microphone in somebody's face and said, "Talk the guy down." He had no more idea than the man in the moon what was involved in talking an aircraft down in bad weather. But, it's kind of interesting. I thought this little incident with the direction finder, though, was kind of . . .
BS: Yeah, that's a good one. Sometimes fate . . .

CH: At any rate, both the radar crew and the pilots that were doing the searching, they all knew what was going on. I mean, they knew how these guys were flying to get back. And knew that the aircraft was actually probably up the coast somewhere from Little America.

BS: But, with a deliberate error, you want to miss if from one side or the other, but you want to know which side you miss it on. So, you make sure it's a deliberate error to the right. Sailors have been using that for years. And ships.

CH: Yeah. I used to do that up at Whidbey Island when I was out fishing up there. You'd get out in the fog and when I came back, I made darn sure I was well to one side of the pass there - Deception Pass - and you get up close to the wall where I could see and then come right down the wall until I got to the pass. It's a good way to go home. But, the problem with those military operations like that is the big brass that's back directing these things, they're going by the book. If the directive says you're supposed to find the trail back, so by god, get out there and search that trail and that's what they did.

BS: Well, they were all at home, too. The Otter had left.

CH: They were back on the ships in McMurdo and other places that they were directing this search from. Anyplace other than Little America, most of them. I think . . .

BS: VX-6 sent a P2V from Patuxent River.

CH: Yeah. It crashed, though, in New Zealand?
BS: *No. No. In . . .*

CH: In Venezuela.

BS: *Venezuela.*

CH: Crashed and every soul got out of that thing alive. That was amazing, crashing in the jungle.

BS: *And they didn't get hurt.*

CH: Yeah. That was unbelievable.

BS: *Absolutely.*

CH: Well, anyhow, they didn't make it down there for the search, but I think they did finally get some of the big wigs from the ships and other places that came in to Little America to direct the search directly from Little America. But, this was pretty late in the game. And by the time they got in there then and they had talked to the pilots that were there and had been doing the flying, knew what was going on, the weather then cleared in the area where we wanted to search all along and they sent an aircraft up there and right off the bat, found them.

BS: *Yeah.*

CH: But, it had been really bad weather up there all the time before that. They just couldn't get up there to search.
BS: *That's the worst weather on the main continent. The peninsula is pretty.*

(350)

CH: And it's fairly mountainous up there, too. They didn't want to just go up there and mill around in the mountains trying to search for somebody. Anyhow, it was kind of an interesting operation. As I recall, they had seven people on that Otter and I can't remember for the life of me who the heck they were. I know George Moss, was the surveyor aboard and he's the guy that actually plotted their position, found out where they were and then with him and the others, made the decision then to come back because he had all the equipment and they hauled it along on the sled with all the food and stuff so he could keep their position plotted as they went. And it's amazing how far they got. I mean, they really made a long, long ways. Well, actually, they was gone for 7 days. They didn't start until about two days after the crash or something like that. So, 5 days . . . they made it about 50 miles back. And dragging a sled and I think one of the guys had a leg that was injured. I think he had twisted his ankle or something?

BS: *Stretch had hit his forehead on the yoke.*

CH: Yeah. There were some minor injuries. Not serious. But, there were some minor injuries. Probably somewhat hampered them on the way back. And, of course, let's face it, down there in that mountainous terrain, with crevasses and dragging kind of a canvas toboggan-like sled they had with them, and dragging that thing along behind, that had to be pretty rugged going.

BS: *Yeah.*
CH: But, it was interesting. Anyhow, it wasn't too much after that. The crash occurred on the . . . I think on the 3rd and I think they were actually found and brought in about the 10th, somewhere around there. No, it was on the 9th that they were actually found. And so, we really worked pretty full time then on the equipment. We got both buildings . . . there was an operation building and aircraft maintenance type of building that we put up out there. In the one, we had the control tower which was a smaller enclosure, with plexiglass in windows up on top. We had that all set up with the tower mounted on top with the radar, at that time, set up on sleds. However, later they moved them up on top of the building the following year.

(400)

But, when I was there, they still were on sleds. We had the navigational aids all fairly well operating and aligned. And about the 17th of February, was when I was transferred to the Wyandot for the return trip back to the States.

BS: *All the way to the States.*

CH: No, we went via Auckland, Montevideo, Rio de Janeiro.

BS: *Oh, you went around the Horn.*

CH: Yeah. Rounded the dreaded Cape Horn and learned to spit to windward and all that kind of rot. That was another one of the little certificates that the Navy put out, rounding the dreaded Cape Horn. But, originally I was supposed to have stayed down there for the winter. They wanted to cut back on the number of wintering-over personnel just because
of support problems for the number of people they had. And decided the best bet would be to cut out the aviation personnel who really wouldn't be needed until the next year anyhow.

BS: *Didn't Stretch fly that winter? He flew in the dark.*

CH: Some, yeah.

BS: *Just around the camp.*

CH: Yeah. They didn't fly a lot, though. The main thing they wanted us to get the buildings completed. They were kind of thrown up in a hurry. The snow piled up around them. A lot of the interior work wasn't done at all. There were still cots around and people would find a place they wanted to sleep and grab a cot and sleeping bag and jump in it and go to sleep. Nothing organized at all. The commode was dug in ice down at the end of the tunnel there where they had built between the buildings and we used that for a commode. It was pretty crude. So, they needed the Seabees down there to do a lot of the additional work to smooth things out, get it cleaned up and ready for the crew next year. And also there was quite a bit of the scientific equipment that was to be installed down there that had not . . . that had been put off until last. They had very few scientists down there working on stuff at that time.

BS: *Did you have weather guys from Weather Central, International Air Weather Central?*

CH: Yeah.
BS: *So, they set that up.*

CH: The actual scientific program of studying the ozone layer and all the other . . . aurora studies and all the equipment they had to do those things, they had all kinds of fancy equipment down there that had to be set up and installed and special buildings for them.

(450)

BS: *Those hadn't been set up when you left.*

CH: They'd started them, but none of them was completed.

BS: *But, they didn't have any of the weather group down there that first year?*

CH: It seems to me like they did have some.

BS: *Mort Rubin?*

CH: The name isn't familiar to me. I've forgotten so many people that was down there. I knew a lot of . . . well, and I can't remember . . . some of the people that really stuck. Of course, this case of this aviation technician that we had down there, I knew him really well, but everybody called him Cochise. That's the only thing I can remember him by. I can't remember his actual name. He was of Indian descent and he just picked up this name Cochise somehow. I don't remember how they had tacked it on him. But, everybody referred to him as Cochise. Everybody liked him well. He didn't particularly like to be called Cochise, I don't think, but he always kind of took it with a grin and
ignored it, more or less. Real nice guy. Sharpest technician I think I've run across. You know, all the technicians we had in the ground controlled approach business were sharp. Most of them were ETs who had more experience working with the heavier radar type of equipment that we had, the ground based radar and communications equipment. The aviation people had been working primarily with airborne, lightweight radar, and communications, but this guy picked it up well and did a fantastic job. If it hadn't been for him, we'd of really been in hot water down there at Little America trying to get going with our ET left behind in Christchurch.

BS: Was it an ET or AT left behind?

CH: The ET was left behind. The AT came down with us. Fortunately, we had trained him well in Davisville, and he was a quick learner, too. But, anyhow, I boarded the Wyandot at Little America and went back to Auckland. We arrived in Auckland on the 25th of February, and stayed there until the 7th of March, so we had quite a lengthy visit in Auckland. Quite nice!

(500)

While we was there, however, we got word that Max Keel, 2nd class CB driver had been killed on the trail party to Byrd Land. Max was one of the drivers that taught the air control guys how to drive Caterpillars up at Davisville. A real likable guy. Originally hailed form Pendleton region. Used to perform in the rodeo there, in fact. He'd been raised on a ranch out there in the Pendleton area. A real artist with a Caterpillar. The roads, as I mentioned before, when we was going across the bay ice in particular . . . well, the whole road up to Little America, the sled would push up the snow and then would ride up over the top of the snow and make a hill. The next sled would come along and
make a bigger hill and a few days of this with one sled train after another going back and forth up that hill, this road would become unbelievable. It was like a roller coaster. You'd just go up a steep hill, up and down another one and it was like riding a roller coaster back and forth. So, Max Keel was really sharp on using the blade on the Caterpillar. And he would come down that road with the Caterpillar in high gear running full tilt doing probably, you know they get along at a pretty fast speed - 10, 12 knots or something - he'd been going down that road and his arm would be on that lever for the blade, just moving back and forth like it was a piston keeping that blade level while the tractor's going like this. And he'd level that thing off just as smooth as the devil. And two or three days later, the tractor train would have to haul things back up again and he'd have to go back out and do another one.

BS:  *He didn't teach you everything he knew, huh?*

(550)

CH:  No, he didn't. But, he was sharp. And a real likable guy. I really felt kind of badly when I heard about him getting killed. He was quite an incentive, I guess, or quite a lot of help to the crew when he was out there on that trail. He did a lot of work just filling crevasses. In fact, he filled and bridged most of the crevasses on the way from the ships up to Little America before he left on the trail party. And they had some pretty nasty areas out there, they'd get in the middle of crevasses where they had crevasses all around them and they had to backtrack for 15 or 20 miles to find another route and he'd be along with them to fill in all these crevasses. Bridged them over. He was working on one crevasse, backed in to another crevasse about 150-200 feet deep and the tractor on top of him and just crushed the whole . . . it's pretty light weight metal around the cab and 35 ton tractor on top of it just caved this thing right in on top of him and they never did
recover his body. He's still down there.

BS: *They had a chaplain right there pronounce the last rites. They put him down on a rope.*

CH: Yeah. And the chaplain down there was kind of a neat guy. The catholic chaplain, actually. He was a real kick in the tail. Real sense of humor. Everybody liked him.

BS: *You remember his name?*

CH: I can't remember his name to save my soul. But, a real nice guy. Anyhow, right after that, they named the McMurdo facility after Williams. They call it Williams field.

BS: *Yeah, still is.*

CH: And Little America was named after Max Keel. After it broke off and floated out to sea, though, I heard and I'm not sure, but I heard that they named Byrd Station after him because he was on his way out to Byrd Station when he was killed. He was on the tractor train out there. Now whether they ever named it after him or not, I don't know. But, I've heard there's still something down there that didn't float away that's named after Max Keel.

BS: *Well, I can check that. I have the book of names at home.*

(600)

CH: But, Max Keel was a fantastic guy.
BS: Everybody that wintered-over got something named after them that first year. They were supposed to. I found out Bob Stretch didn't, so I submitted his name here several months ago.

CH: I know that . . .

BS: They have a National Geographic Board of Place Names and Stretch didn't have his name on anything. I don't know why. Everybody else . . . a lot of guys hadn't done anything.

(End of Tape 2 - Side B)

_________________________

(Begin Tape 3 - Side A)

(000)

BS: This is Tape 3 of three tapes for Lieutenant Cliff Hathaway and the date is the 3rd of May, 2002.

CH: One little thing that happened while we was there in New Zealand, the Edisto, I believe it was, had a screw . . . shaft, I guess actually it was . . . damaged quite badly while they was down there working on the ice and they had to pull into Wellington on the way back to have that repaired and we knew some of the guys that was on it. They spent quite a bit of time down there, I guess, repairing that shaft. They had to pull the shaft out and do some work on that. Replace the prop and I believe, if I recall, they later then came
back to the States for further repair. In fact, they may have come back on one prop. I
don't remember for sure. But, they did come back to the States to get some more repairs.

BS: *Took some ice, huh?*

CH: Yeah, they took some pretty bad damage. We had a little liberty incident there that
was kind of interesting. I had made Chief down there, but didn't take any uniforms with
me. I had my hat. That's the only thing I took with me was a hat. So, coming back on the
*Wyandot*, this old Chief Boatswain [boatswain?] mate with about 30 or so years in the
Navy was going to retire when he got back, so he agreed to sell me his uniforms. Well, I
was an Air Control-man. He was a Boatswain’s mate, but you know, what the heck is a
uniform? So, I bought his uniform and wore it with his Boatswain mate stripes on the
thing and hash marks, god, he had more hash marks on that thing than I've ever seen. I
was a pretty young Chief when I made Chief, and of course, I'd joined the Navy when I
was 16 to start with. And I made Chief right off the bat or pretty close to on time, you
know. I think I had one or two . . . a couple of hash marks when I made Chief. At any
rate, I'd gotten this uniform off of this Boatswain Mate and hash marks all the way from
his wrist to his shoulder. So, we had this big party. In fact, I think the party, as I recall,
this guy from Chicago Bridge and Iron who had been down on the Ice with us, had come
back on the *Arneb*, and he was due to be flown out from Auckland back to the States. We
was going to ride the ship back and he was going to fly out. And he was a single guy.
And we had this going-away party for him in this little house that the people . . . a lot of
the Seabees down there had gotten together and somehow or other rented or otherwise
procured this house out in the town that we used to spend a lot of our time at partying and
so forth. In fact, it was so filled with beer bottles, that there was a trail from one room to
the next through this house. And so, we had this big party going on and they had an old
lady . . . probably not an old lady from the standpoint of my current 71 years, but she was
quite a bit older than all of us were, and she was there at this party and this guy from Chicago Bridge and Iron showed up with this gal he'd picked up in town. And he was really doing his best to make out with this gal and she wasn't having any of it unless they got married. She was interested in him marrying her.

So, this gal that was there, heard about it and she said, "Well, we'll have a wedding ceremony." And I guess some of the Seabees there, too. I was there with my gold braid all the way up my arm and they convinced this gal that I was the captain of one of the ships down there and could perform a wedding ceremony. So, this gal put the whole thing up. She had the altar, whole ceremony all written on paper and everything and I got up and performed the wedding ceremony. I have no idea what she thought the next day when he flew off to the States and she found out she wasn't married. But, I thought it was rather comical.

BS: I was father of the bride in Christchurch from '82-'85, probably 20 times, giving gals away that married guys that we sent down “To The Ice”. And they wanted to get married in Christchurch on the way home. They could get married “On the Ice”, but they formally didn't have any U.S. state recognize the marriage. The chaplain could marry them, but there was no country that could certify that. When Americans who got married in Antarctica, went home and had to pick a state and get married again.

CH: That old lady down there, she was getting a big ball out of this whole thing. She thought it was funny as heck and she was really in on it. She got flowers and oh, she'd set this place up. It looked like a regular wedding ceremony. And this gal thought sure as heck I was the captain or something because of all the gold braid must have had
something to do with something or other. And had everybody convinced her that I could perform wedding ceremonies because I was the captain of a ship. It was funny as the devil. We thought it was hilarious.

BS: _So, you performed a wedding._

CH: At any rate, we pulled out of Auckland, I think it was on the 7th of March, and arrived in Montevideo, Uruguay, on the 26th of March. Stayed there until the 30th, and then went up to Rio de Janeiro from the 3rd until the 7th of April. Arrived back in Norfolk, on the 20th of April. The Ground Controlled Approach people had a pretty close-knit group. They had their own assignment section in Washington, DC. They were not assigned through the normal BUPERS assignment channel. We had our own assignment section. We submitted monthly reports back and forth that went between all the units and assignment personnel and so forth, listing the people that were assigned and where they had come from, when they was leaving and where they was going, how many approaches we'd made per month and all kinds of information on the unit. Each of the units, of course, got copies of these, so you knew almost everybody in the Ground Controlled Approach system either by having gone through school with them, on duty with them somewhere, or by reputation through these monthly reports and so forth. And so, it was quite a neat deal. Like I say, there was probably not more than a few thousand of us ever in the entire Navy. I can't recall now how many systems we had throughout the world, but not a lot of them. Probably a few dozen. Each one of them had probably 20-25 people assigned. Each of the units usually had a GCA officer assistant, maintenance chief, operation chief, usually an engineman who took care of the generators and so forth and the equipment that we used - the trucks and things like that, the diesel generators and things.
And then, a few operators, controllers. So, when we got back to Davisville, I made arrangements for the crystals for our navigational aids down at . . . We also . . . there was this little yellow radar unit - GCA unit - that we had that showed up in the pictures there. I think that unit was built by Raytheon, as I recall, and it was damaged. Somebody had run a forklift through the side of the packing crate and hit a wave guide and really banged it up pretty badly. So, I had to make arrangements to get that piece of wave guide replaced. However, as a side note, down there, we had equipment you wouldn't believe and people that were competent as the devil. And we had a bunch of machinery repairmen down there - Seabee type.

BS: *This was “On the Ice.”*

CH: Yeah. And I think the Seabee . . . I can't remember what the rating designation was for Seabee Machinery Repairman, but they had a 1st class machinery repairman down there that was just unbelievable. So, we pulled this piece of wave-guide antenna off and took it down to him and that wave guide has got to be accurate. I mean, you can't have any little dimples or anything on it or it really messes up the signals going through this wave-guide. And he took that piece of broken wave-guide, damaged wave guide, and repaired it to the point to where you would not believe that it had ever been dinged. But, I was a little concerned that it might somehow or other affect the performance of the radar equipment a little bit, so I wanted to make sure we got the real McCoy down to them at Little America the next year when the planes went in. So, I made arrangements for that wave-guide to be shipped out. And a few other things, too, that we had discovered we were short of or wanted or whatever.

So, I made arrangements for that and then I called the assignment officer at
Washington, DC, to find out where I was going to go from there. Now, they had told us previously that the wintering-over group would all get their choice of assignment when they came back, but seeing as how I had originally planned to winter-over, but came back early, I didn't expect to get my choice of orders. So, I called the assignment officer and asked him where he was going to send me. He says, "Where do you want to go?" And I say, "What do you mean, 'Where do I want to go?' I'm not going to get my choice of duty, am I?" "Sure," he says, "That's what I'm telling you. Where do you want to go?" I said, "Well, I'd like to go to Moffitt Field," right close to where my wife was living while I was down there and I'd been there before. Really liked the Moffitt Field area, so I went back to Moffitt Field and met the family and put nearly four years in there before I was transferred. I'm not sure what happened. There was two guys, myself and another guy, that both . . . our normal tour of duty is like 3 years. We both spent almost 4 years there. Whether they lost track of us somehow or another in the mill back in Washington, DC, I don't know. It may have had something to do with the quad radar. They did send us two quad radar units there at Moffitt Field, similar, but slightly different . . . well, the radar antenna system was identical. The indicator assembly where the radar scope was and so forth, was quite a bit different.

(150)

The military, after they submitted the information on the quad radar to the military and the Marines had gotten their foot in the door to recommend the specs for this equipment, they decided that the indicator assembly had to take a, I think it was something like a four foot drop onto concrete or something without damage to the equipment. Well, you can imagine a cathode ray tube - a big 12-inch cathode ray tube is something like that. That looked like a tank when we got it there at Moffitt Field. The metal - a quarter inch steel plate or something like that - the indicator was made out of and mounted in there was
shock absorbers and everything. I guess it finally passed the Marine test, but it looked a lot different than the equipment that we took to the South Pole. But, we set it up there at Moffitt. We had two of them. We set it up there to do the Navy acceptance test and evaluation on and also the FAA got involved in the act while we was there, so we performed the acceptance test for the FAA also on the quad radar and used it all the time we was there at Moffitt. In fact, every facility that I was assigned to . . . every air traffic control facility I was assigned to after that including Whidbey Island just before I retired, had quad radar attached to the system. Turned out to be quite a nice piece of equipment. The Army and Air Force both used them in combat operations. In fact, the Marine MAG unit had quite a sophisticated portable air traffic control facility that they developed and used to set up for their forward operations and used quad radars in the process. They had miniaturized it somewhat later on and made it even smaller than it was when we took it down to the South Pole. So, that was rather interesting.

BS: *Tell me, you left the Ice. What did you take from the Ice that stayed with you throughout the rest of your life?*

CH: I took an awful lot of clothing with me.

BS: *Um-hmm. I didn't mean that.*

CH: All of the sea bags, all of the clothing that we had down there that you had assigned to you, personal clothing, was yours to keep. We had two sea bags or so of cold weather clothing that they allowed us to take back. An awful lot of my clothing looked pretty ratty by the time I left the Ice, however, because I worked on that fuel tank and as I mentioned earlier, these felt boots that I had, the snow wouldn't melt anywhere around except on that dark metal plates that we were using to build the tanks out of. You're out there welding
on them and there was all this melted snow around and you'd just get puddles of this water around and in walking through that water, those felt boots just didn't stand up. They were supposed to be for that powdery snow only. And some of the other equipment was really pretty nasty looking by the time I got back here. A lot of it was torn. I'd snag it on those big steel plates, the corner of a steel plate or something or some area where I'd chipped off a bolt and didn't make it smooth. I'd rub up against it later and tear the heck out of it. Most of the clothing looked pretty nasty. Some of it was pretty good. In fact, I wore it out. It's all gone by the wayside since. The only thing in the way of a souvenir that I tried to bring back was a can of Heinz 57 Variety pork and beans canned in 1890 something that was part of the original Scott's camp.

(200)

BS: *Did you go ashore there?*

CH: Briefly.

BS: *Which one? Cape Evans?*

CH: Yeah. And somebody had given me this can of pork and beans. I don't remember where I got it from now, but they had gone up there and taken it out of the shack - Scott's shack. And it kept great while we was down there. It looked like the day it came off the store shelf, shiny, nice shiny can. The label perfectly legible and I thought, god, this would really be a nice souvenir. And so, I took it aboard ship and I looked at that thing about half way back. The can was just a rusty mess, the beans had thawed out, split the can open and they were all over heck. So, I never did get back with my can of pork and beans. It looked like a great deal when I got it, but boy, it sure deteriorated in a hurry
once it got in hot weather.

BS: *Well, it was a fun time of your life down there, huh? Or was it?*

CH: It was nice.

BS: *You've stayed with the Deepfreeze Association.*

CH: I have not gone back to any of the reunions.

BS: *I went to one in Biloxi last May.*

CH: I was going to go. In fact, a couple of the guys that I know in the air traffic control facility reunion group, I go to that. I know most everybody there. And my wife knows a lot of them, too. So, we both enjoy meeting the people that we've done duty with the GCA units throughout the country. So, we do those. That's every other year. I think the Antarctic Deepfreeze - they've got a Deepfreeze I and II group.

BS: *Meets in Atlanta.*

CH: I'm not sure what the deal is. I know a couple of guys in GCA group that was down there. One of them was at Little America the year following me on Deepfreeze II and he bugged me a time or two to attend these reunions. But, I also had a squadron reunion that I like to go to and I make one of those occasionally. And the *USS Ranger* has a reunion.

BS: *They've all got reunions.*
CH: No way you can attend them all.

BS: *Well, I went and did a bunch of oral histories in Biloxi, which was really handy because the guys were all there. I wanted to get Cliff Dickie. Some of them were too busy to be interviewed, but others wanted to do it, so that was handy. But, it’s not the place to go to do interviews because everybody* . . .

CH: Having a party.

BS: *Yeah. Well, they're seeing friends. They don't party that hard.*

CH: Oh, they usually have a little open house facility there.

BS: *The guy who put it together there was a Seabee who had retired there at Biloxi and he did a good job. Well, this has been a good interview.*

(250)

CH: I went from Moffitt to Argentia, Newfoundland. I was commissioned up there. Flew EC-121s on the DEW line extension between New Zealand and the Azores. Flown as the assistant CIC officer up there at ___ 8, at that time, and I flew as assistant CIC officer on the EC-121. And I was later commissioned there and then went from there through a couple schools at Pensacola, and catapult and arresting gear school, so I get assigned as a catapult and arresting gear officer, maintenance officer. Strange at the time. . .

BS: *Did you make Senior Chief before?*
BS: *You went Senior Chief, Ensign.*

CH: And the officer designators, at that time, 6602 was the same designator used for air traffic controllers, photographers, parachute riggers, Aviation Boatswain Mates, and I think there was another one, all in the same designator. Well, when I got commissioned, they were supposed to be in the process of coming up with another designator for the other . . . actually several different designators for the other specialties, but they needed Cat officers and Cat maintenance officers and fuels officers real badly about that time. They was in the middle of the Korean War and they needed Cat officers, so there was two of us air-control-men that had gotten duty. I got the catapult maintenance officers assignment. He got aviation fuels assignment on the *USS Ranger.* And so, I went through Pensacola and back to the Cat officers school there in Philadelphia for maintenance school. And then went from there to the *Ranger* and put a couple tours on the ranger as a catapult maintenance officer which was another interesting tour of duty and probably the tour of duty I had at Little America helped a little bit there because, have you ever seen a catapult outside in the open? That thing is huge. Launch? You know . . . I worked a little bit around some of these pipelines and things like that and they was talking about . . . we went into the class one day and they was talking about the launch cylinders on a catapult. We had a class on the launch cylinders. All we had was diagrams and things like that to look at. I was visualizing something like a little globe valve out here on a pipeline someplace. When I seen that launch valve, I was amazed. It was out on the hangar deck and that thing was huge. I mean the cylinders on that thing are something like 28 inches or something like that and a pair of those things, side by side, two pipes feeding it. And, of course, they open up into the launch tubes which run down underneath the flight deck.
And I was really amazed when I looked at those things. But, working with a lot of that heavy equipment down there at the South Pole and stuff like that made that job pretty easy. You know, I was an air control-man, talked aircraft down in bad weather and working in a control tower, tell them where to land. And I had no background for working on a catapult or arresting-gear engine. Huge, huge piece of equipment. The torque wrenches they used to torque the bolts down on that thing took two men to carry them. 1000 pounds of torque. I had worked on cars, you know. 50 lbs of torque on a head bolt or something like that. Little rinky-dink torque wrench that long. These things were 10 foot long with a big gear box, 4 to 1 multiplier, 1000 lb. torque wrench with a 4 to 1 multiplier to torque the bolts on the accumulators for these arresting air engines. It was an amazing eye-opener to me. But, it turned out to be a rather exciting and interesting tour of duty again. Working on the flight deck with all the shrapnel flying around and the aircraft comes in and hits that cross deck pennant and pieces of things always seems to give way. Old shackle bolts flying around through the air. In fact, one day, I was there launching aircraft on the cats, all of a sudden the guy standing along side of me starts jumping up and down, flailing his arms around. Looked like he was having some kind of a fit or something. A shackle bolt had broken on the bridle arresting equipment, hit him in the thumb and that thumb was just flattened. It didn't even look like a thumb any more. That thing had hit him going by. The only thing that saved him was that he had the thumb down there where it could give a little bit where the bolt hit him. But, they discovered what happened and sent him down to sickbay and they actually sent him up to Oklahoma Naval Hospital later on and had it redone a little bit, but it was still kind of stiff. It was totally stiff and of no use as a thumb. But, things were always flying around that flight deck. Aircraft or a helicopter would be parked out on flight deck control, a bolt would go in one side and out the other.
BS:  *We had one of the wires break on the Intrepid and it cleared the deck and tore two guys legs off.*

CH:  Well, I was going to mention that. That happened on a couple of ships out there. That was part of my job, maintaining those things. And I put out the word to my people, you're supposed to, every few landings, you'd have a guy run out there and run his hand, with gloves, run his hand down through the cross-deck pennant. You were allowed one break every other turn, I think it is. One wire break every other turn in that dad-gum cross-deck pennant. It was still legal to land aircraft. I told those guys that was checking those durn cross-deck pennants, if there's a broken wire on that damn thing, it's going over the side. NO way are we going to take more than one broken wire the whole length of that cross-deck pennant. We threw a lot of cross-deck pennants over the side without very many hits, but we didn't lose anybody, I'll tell you. But, that was an interesting tour of duty.

(350)

(End of Tape 3 - Side A)

____________________

End of Interview