Theron Smith

Theron Smith and Terry Smith
Oral History Interview
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Anchorage, Alaska

Interviewed by: Jim King and Bruce Conant

Jim: We are at the home of Terry and Theron Smith, talking about the aircraft division. We have done several interviews lately and having some good times telling stories. I was hoping, Theron, that you could tell us the one about how you dug the canal between Lake Hood and Lake Spenard. Was this before the War or after?

Theron: Before the War. I was working for the Road Commission at that time and didn't know much about Fish and Wildlife or anybody. I used to shoot a moose occasionally. I didn't know that they were going to put the canal across there until the spring. They had a small little ditcher and they had to put a long boom on the thing, a dragline type thing. I had been using the steam shovel for about two years before that. I can't remember the boss' name where we worked in the shop here in Anchorage but he was talking to me one day and he said, "you know how to run this thing and it is fairly simple to put the boom on and I want you to take this guy down and show him how to run this thing."

There was only one little skinny dirt road out there at that time. The lake was being used a little for floatplanes. There was no airport, no nothing out there then. In fact, they made a little runway along this side of the lake. We got the truck in there and drove the thing down to the lake and I decided I would run the thing a little bit. The engineer might have had some stakes out there because we knew where it was supposed to go. We worked it on our side where the runway was. We started on the northwest. I hadn't run a ditcher exactly like this so I was practicing a little and this guy was watching how I was running the thing. He hadn't run one like this; he had run a bigger one. It didn't go

round and round, it just went back and forth. We spent a day or two and he had it working pretty good. He was making a ditch there so I went back to work over at the shop. It was probably pretty close to a month that he dug. He got the depth about right, not very deep but deep enough that you could use floats without dragging on the ground. We used a bulldozer and shoveled the stuff out level. That's where we started. I think it has been dug up a number of times since then.

Jim: It turned into a neat facility. It was the only lighted water landing in the country, I think, for landings on floats.

Theron: There weren't many airplanes around there at that time, probably about 4 or 5.

This one fellow flew up to Bethel quite a bit and he had a single engine airplane with two wings on top. He wanted to get floats on it. We hung his airplane up and got it straightened up. Then he got a couple of floats there and he got it moved around a little bit and he manufactured that thing right there. He got the floats underneath it and got it about right and started sawing the struts. It worked pretty good. He flew it around for about another 30 years.

Bruce: Did Fish and Wildlife Service own the land there already?

Theron: No, I think it belonged to the Bureau of Land Management. When we were deciding where we were going to build the hangar, there was a little hangar there that was done before I ever got there. They had a couple of little boxes that came from the military and then there were a bunch of buildings just a little southeast where the military had a couple of airplanes parked there.

Washington was going to decide how much land we were going to have and we decided to put the small hangar in one place and then put the bigger hangar in another place. We thought we had better have somebody measure the area around and see where we were. Well, we were in the wrong place! Anyway, that was the only place we had that was

decent. We had three pieces along there, one was Fish and Wildlife, and I can't remember the others. Ours was farther on to the southeast. The government in Washington got into this business and they decided how much land and they just marked it up and that's where it was and that's where we built the hangar.

Jim: Clarence Rhode flew for a private airline during the war years then he came back and started doing something for Fish and Wildlife for aviation.

Theron: He became a pilot before the War, not too many years prior. When the War came, there wasn't much done with Fish and Wildlife at that time and the people that we had in Juneau were a couple of real old guys. One would sleep most all day. Clarence decided we needed airplanes and he had flown for Ray Peterson in Anchorage. During the War, the airplanes were getting used up and we didn't have many and couldn't find any. We had a lot of flying to do. When the War finally ended, Clarence came down to Lake Hood and as I said, there was practically nothing there. We had the ditch and I guess there might have been a couple of small buildings in there and of course, there was the military right west of where we were. They had a water drill in the thing and they had about 4-5 people there and they had a couple of airplanes there. If an airplane broke down, then they would have these two airplanes.

Jim: So it would have been Clarence that would have been arranging for the land designation and working it out with BLM.

Theron: Well, we didn't even know where the land was at that time. While we were starting there, Clarence tried to get some more of the airplanes from the military. They had quite a few of them out there. He liked the L-1's. He didn't want to take the floats on and off. He wanted airplanes with skis on them and just change them in the winter. Clarence had some funny ideas that way, summer airplanes and winter airplanes. He hadn't been trained to run the aviation thing very well. He was a pilot, of course, and he did a good job outdoors, I think, chasing animals and people but his idea of running the hangar was not too hot in a lot of ways. I can't remember how long, but he might have

been there for two years at the most. They were going to do something to Alaska, like get more people and get things going and find out what was in Alaska, more or less. Clarence went down to Juneau to take care of things. He became the Regional Director then. There was a pilot, Slim Bragg, that was running the place in Anchorage and he wanted the State to get out of it.

Clarence wanted me to come down to Juneau. He had an awful time deciding how to get me down there. For some reason, the Fish and Wildlife didn't have too many people. They hadn't made me chief pilot so Clarence decided they would put me on to go to McGrath. That didn't sound like a very good idea so I came to Anchorage and I was in a hotel. I was there for about a month and a half while they were deciding what they were going to do. My money was falling away! They finally got it figured out and sent me to McGrath to run the thing.

Jim: Clarence had this dream that he used to talk about of having everybody using airplanes like people "Outside" used pick up trucks. He used to say that an airplane to our people is like a horse to a cowboy and things like that. That was his dream but it was you that put together the thing that made his dream work. You developed ways to bring the younger pilots along and get them going.

Theron: That is about right. We had to start these people a few hours at a time and train them well enough so they wouldn't kill themselves. It worked out very well. We had some people killed, of course.

Jim: Not the light plane pilots that you trained though.

Theron: That's true, but we hadn't trained the man in Juneau, Bob Meeks. He became a pilot and he was a little scared of the bigger guys. He went over to Sitka to a meeting. I think they had about five people, including a woman. He decided not to put more gasoline because he just flew over there and he was trying to fly home. They stayed there a couple of days, I think, but then a couple of guys decided they wanted to fly right along

down the river and look at the fish along various places. This is when Meeks should have either put some more gasoline in but he didn't. I don't know how far they were going and that sort of thing. The wind was blowing pretty hard from the north and when he turned and started coming up Fredericks Sound, he was bucking the wind all the way. He then made it up Stephen's Passage and he was right in the middle of a glass peninsula. He didn't make it into the water on the taku side so he turned around and he ended up downwind and that's where the engine quit. If he had been a good pilot, he wouldn't have used all the gasoline up like that.

Jim: His problem was, he wasn't a "Smith" trained pilot.

Theron: Well, he wasn't a pilot that had been in the military or anything like that. He just learned somehow.

Jim: Well there were lots of the rest of us that didn't have a background in flying somewhere else. Somehow you were able to take a whole lot of us that didn't have any flying experience or people that had a variety of military backgrounds and put together a group of people that seemed to have survivability.

Theron: I had quite a lot of training, of course. I was trained pretty thoroughly with the military. I didn't have two years of college during the war so you wouldn't be a pilot then. When I came to the War, I found out that I could train people with a link trainer to fly on instruments. They were killing themselves at a good rate in Alaska at that time. I had done that for a little over a year and it was working out well but then it came out that a person who didn't have college might be trained and see if he could or would become a pilot.

They figured this out so I asked for it and they sent me some paperwork. I had to write down what all I had done and all that stuff. By that time, I had been a pilot in a small airplane for about 70 hours. They took us from Anchorage down to Seattle and on down and they finally decided to send me for about 2-1/2 months of teaching in Denver, for

about 8 hours a day. There were about 120 of us but I never heard of anybody else ever doing this.

Bruce: What were some of your "rules of thumb" that you used when you trained new pilots to make sure they weren't going to kill themselves in the Fish and Wildlife Service?

Theron: The first was to train them a little bit to fly and not be scared of the airplane. There was quite a bit of conversation about what you could do and what you couldn't do. I would show them how to take off and land into the wind. We talked a lot about the airplane, putting oil in the thing and all those sorts of things. There was hardly anybody that couldn't do it eventually if they practiced enough.

Jim: When I got going in 1953, you already had this policy in place that people had to have 100 hours and a private license.

Theron: We trained a few people that didn't have license.

Jim: I think probably a third of my first 100 hours was with Ray Woolford in the Pacer. I suppose that wasn't legal for me to log that time in a Government airplane but Woolford was there and I was learning a lot from him. He was flying around areas that he was really familiar with.

Theron: The FAA would give you your ticket. They weren't too concerned about where you learned.

Bruce: When you sent them out to fly on their own, did you have certain limitations whereby they couldn't do certain things until they got more and more experience? Did you try and put them with more senior pilots?

Theron: You couldn't do that all the time because sometimes there was just one pilot. We tried to train them well enough that both of them wouldn't be killed. We were quite successful, I think.

Jim: I really think that one of the remarkable things about the Aircraft Division in the 1950's and early 1960's was there was really nobody seriously hurt with just a couple of exceptions. There was that fellow who was just out of the Navy that cracked up in the Brooks Range but he hadn't been flying for Fish and Wildlife for more than a month or two.

Theron: He didn't have many hours with the military for one thing and he wasn't trained well enough to handle the airplane very well. Even on take offs, he had trouble. He would go in different angles and stuff. I spent some time with him. I told Ave Thayer in Fairbanks that he was hardly capable to fly and he had to fly very capable things and not get into the clouds and not get into mountains, etc. He went right into the mountains, right in the canyon! He was going to go over and decided he couldn't make it so he turned around and he didn't make that either. I had told him not to get up in a place like that. I didn't have a lot of time at that time to train people. I had Tom Wardleigh to do some of it.

Jim: Except for that guy, the two Goose pilots, Clarence and Meeks, the rest of us were banging up airplanes but nobody was hurting each other. They weren't life threatening. They were just hard on the airplane.

Theron: There was more banging up of airplanes than I would say in a normal way.

Jim: Like Jim Branson running off the road and landing in the tree tops that he was telling us about just yesterday. There were low speed problems and rough landing places.

Theron: I think you were trained enough that you knew what you were doing.

Jim: There really weren't a lot of weather accidents where people got disoriented in the fog.

Theron: We didn't have anybody flying on instruments but you weren't supposed to be out when you needed just instruments.

Jim: I flew 20 years for the Fish and Wildlife Service and OAS sent me out to get an instrument rating. The instrument flight plan that I filed was my checkride.

Bruce: Could you say something about the airplanes you got, especially when you went down and got all those Beavers?

Theron: We had several.

Jim: There was an Ironica Chief and a Stinson Stationwagon.

Theron: That was one of the first ones that we bought. I didn't decide to buy that. I think Clarence bought that.

Jim: It wasn't very popular. Then there was the 170 that wasn't very popular either.

Theron: Yes, but that was a better one then. From the military, we had about three big airplanes. We bought three big Norsemen's, all of them on floats. We never did take them off. They were used more for hauling freight around. I think Clarence got those. He got most of those. I didn't get into getting stuff from the military and things like that until we got into the Gooses and the Widgeons. I can't think of some of those airplanes.

Jim: We were wondering more about how you and Clarence developed such a smooth running operation. As you say, you started out with not many trained people and not much new equipment, mostly bits and pieces.

Theron: We only had two people to run the airplanes and maintain them. Neither of them was very good. Out in the snow, the hangar didn't have a door. It was not very much of an operating system. Clarence was kind of leaning on me saying that I didn't have to work on the airplane too much. Well, I thought you had to do quite a bit on an airplane. I got rid of both those people pretty quickly. We got rid of a lot of the old airplanes and some of the military airplanes. We got that new little one, the one you mentioned – the Stinson Stationwagon. We got the money from Washington and bought that airplane about the time I came here. The first airplanes that we bought new were the Cessna's. They were the small ones. I think we had about 4-5 of those until we got some better airplanes.

Jim: The Piper Pacers were the first ones that I remember that were real workhorses. We used them all over the place. They were a good cold weather airplane.

Theron: They were O.K. They just wouldn't haul as much. When we got enough Gooses, we let the Widgeons go. I think I should have kept one for Dave Spencer down at Kenai. He was upset about that the rest of his life, I think. He liked that airplane very much.

Bruce: Then you found out about the Beavers that they were going to surplus?

Theron: That was about when we were to become a State. We bought one brand new Beaver. That worked out pretty well. They weren't as fast as they should be and they aren't the best airplane in the world but they haul everything. You can see out of it fairly well. I think more Cessna's would have been better. The military came out and said they had a bunch of Beavers and we had already bought that new one. I hadn't thought that was the best thing but they were free and I think we got about six of them. Some of them went down to the other states. I went down there with a couple of guys to overhaul them and got them going enough to bring them up to Alaska.

The Goose was an airplane that had warp speed and a lot of stuff – more than it should in some ways. It had good engines. The airplane was built many years back but it was pretty well designed. Flying around the coast for the fish, etc., that was one of the better planes to work. Clarence had twin engines – the Beach. He had two different ones. Then, finally, we got the DC-3. That was great, you could go clear out to the coast and haul stuff all over the place. We were getting out of the business in a way. The State was getting involved in a lot of things that we were doing then. When the State got involved and telling me all the things they were going to do, I decided it was time for me to leave. They were getting all tangled up with the wrong people and not doing a very good job. The price was going to be about 3-4 times normal. I just figured I wasn't going to run that place that way.

Jim: I know you were hauling Congress people around on a lot of the "show-me" trips. The Standard Grumman wasn't doing everything that you wanted it to do and neither was the DC-3. How did you develop the idea of rebuilding a Goose with turbine engines?

Theron: Quite a bit of thinking went into that. We needed an airplane that would fly out in the Aleutians and go any place, into Canada, with good instruments, good engines, go from one place to another. I looked at a number of airplanes, military, etc., and they just didn't have the ability to do what we wanted them to do. They didn't have the fuel to go, they didn't fly long enough and not the right engines. So I decided the best thing to do was just build a Goose. I spent a couple years thinking about it. By this time, of course, the Goose had different engines. The manufacture of the Goose was a quick way to get the cheaper kind of engines and also to have the floats brought up. I looked at that and there were a number of things wrong with it. They didn't do a very good job with the airplane. They just kind of put a couple engines on there, had old wires and all kinds of things that weren't good. These were the McKinnon conversions. I decided we could do much better.

I had been talking about that for about 4-5 years and trying to get money from Washington. They would just tell me to put in for it but that I would probably never get

it. Well, what do you know, there was a guy that used to fly in Washington and he had retired there and was chief of Fish and Wildlife. He came up here to Alaska and I hauled him around the whole state. He had never been here. We talked about airplanes. I told him the story about having better airplanes. What do you know – the next year, they got me half of the money that I needed. Then we got started and went down to Phoenix. I had already seen the engines pretty well in Juneau and various places but the engines that we had before were Canadian. They had some problems. They didn't have as much horsepower to them.

I went down to Arizona. They were really eager. They thought they could do something for us that would be worthwhile. They didn't know much about a Goose but we talked about that quite a bit. We talked about the price, which was pretty decent. They had talked about some other things like the carburetor came on the bottom of the engines and that is bad in the water. Then I said, well, part of your engine is wrong for the salt water. They said they could make it in aluminum. The more and more we talked; they improved upon the airplane quite a bit. Then we went all through the shop. They told me how the thing was built and they had a good operation. I decided that we were going to have that.

We still had to have the engines put on the airplane. The best guy that I could find was down in California at Volpar. There was an old guy there that had been in the business for a long time. I looked at one of his engines and he had a beautiful one there where the engines were built up real nice, etc., and we talked about the price. It sounded pretty good.

I came on back to Juneau and told the people there about what we could do. Juneau was scared! – a different engine, a big airplane? He said I had better write this down pretty thoroughly. So right there, I wrote the letter. He told me that I had better go down to Washington and take that letter with me. So I went down and he listened to me and read the letter. He took another day or so and talked to me again. He said, well, I think you know what you are doing.

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(120-minute tape)
--start of Side B, Tape 2--

I still had a lot to do because I couldn't buy all this stuff independent and deciding who was going to do what. I spent a little more than a week, talked to Volpar and I decided that the engines would be built that way and also to manufacture the mounts. This guy said he could and he gave me a fairly good price. Those engines on these airplanes are still just as clean and they can be, no cracks or anything. They just run forever.

We used to go down to Portland. I had to go there and talk to the guy that built the other engines, McKinnon. I wanted to get the floats manufactured and put in the airplane like he had; the retractable ones. There were a number of other things that I had him do, very small things.

We had a hangar at Tanacross up at Tok. An airplane had been parked in there for a number of years and we hadn't done anything to it. It was dark gray with stars on it. We just flew it in and left it there. We put oil on it so it wouldn't rust and we decided we were going to go down and get that thing and bring it to Anchorage and put it in the hangar and start working on it. I got a few people to work on the thing.

What we did was take all the paint off. We took everything out of the plane, electrical system, wires, engines, even where the engines were, we took the sheet metal out of there. We went down to the base airplane. We cut the front end across and put about 41 inches into the front end and made it that much longer. We had the same bow. We had taken all the wheels and we manufactured that so that the wheels would go electrical without having to crank that thing.

We finally got the engines from down in California. They did a beautiful job on everything. They were engineers that really knew what they were doing. They built this thing perfectly. Having the engines to be changed at different places, the airplane was

designed between McKinnon. The struts to put into it was over at their place. We had to design for the aluminum that came to the end of the airplane, then we had to design the aluminum down to the wing. We did that ourselves. Then we opened up the wings when we were there and put a tank underneath the thing. We had 710 gasoline. It used to be 220. We saved the original 110's and then we have 120 in the bottom, 240 in the middle, 220 outside – 460 there. Each outside separate had 125 to equal 710 gallons. It would go quite a ways, about 10 hours.

Terry: The Goose, just like the Beaver uses less than double. Just like a Beaver, the Goose goes along on 17 a side. You can't fly a Beaver below 20 to save you because you have to lean on it enough to keep it aloft and that is the same way with the turbine Goose. If it is at any reasonable weight, 32 a side and just below 30 the last 2-3 hours in the day. Just like the Beaver, if you needed to get there from here in a hurry, you can put better than 100 total, 200 knots at 100 gallons an hour.

Theron: That airplane flies almost twice as fast as a regular Goose.

Jim: Did you have to rebuild those wings structurally to carry all that extra weight.

Theron: No, it is spread out on the wing and so it carries itself. The airplane is built like a bomb.

Terry: The numbers on the airplane, as you go over 15,000 pounds gross weight, the plane was originally designed for 6,000, then it went to 8,000, then to 8800, then 9200, then 10,500, then 11,500, 12,500, with the various McKinnon models. This is a 12,500 airplane but there was absolutely no question that we were going to operate it in the 14,500 range so the numbers were all looked at to include 15,000 pounds. The number that starts to close is the rear star in negative at 15,000 pounds. It hasn't gotten there yet but now you are starting to see it on page, otherwise the box far in front, I don't even have a clue what that stood far.

Bruce: That's what they used to say in the Navy – the Grumman's were lead sleds.

Theron: We continued on this and of course as I said, the engines were brand new. The navigation fit in the right place and then we started out with the gasoline and the oil. Then we put the electrical systems all over the thing and electric powers to put fuel to the engines if we needed to. We took the windshield out and put a round one in instead of pointed out. We put new a design for lights across the top, what goes on and what goes off. The instruments were all new so they would handle properly. We were able to tell how much gas we had left. We had new electrical systems for the radios. One day I went out and actually flew it! It was quite a success and it is still here. The government should have kept it but they are clear out of the Goose business. They think they could do something with another airplane, I guess.

Jim: The things that you did in there with the windows really was something. There is no other airplane that has the visibility to look at birds, sea mammals or other things like this plane does.

Bruce: How about the Beaver? How did it come about?

Theron: Down in Washington is when I got the word of it that they had a whole bunch of them and maybe we could get some. I already had this new one and I wasn't too enthused with it. It goes slow, hauls quite a bit of stuff but it lumbers and you don't see out of it as well as you should but the State was coming and they were going to take four(?) airplanes away. We went down there and looked at them and found some better ones. We cleaned them up a little and brought them up. They are still here.

Bruce: Well they sold all of them except the turbines. They got rid of the rest of the ones you got. How did you decide to put a turbine engine in the Beaver?

Theron: That was kind of an interesting operation. I wasn't really thinking much about it, not like I spent thinking about the Goose. We thought it would fly pretty good if we

put a turbine on it. We thought if we would get the same engine that was on the Goose, it would be one of the better things that we could do. We finally decided we would build one and see. I was working day and night at that time. I wasn't down there all the time they were working on it but I would go down once in a while and see how they were doing. It was looking like a funny airplane. We finally got it finished. I didn't spend a lot of time designing the thing or deciding on having the gasoline a different way and that sort of thing. The guy that put the engine in it did a good job.

Terry: The Aussie's made a beautiful Garrett-powered Beaver but they never got it certificated in this country and then they quit building them. They only built two and they were quite a pretty thing. Have you flown the airplane on wheel-skis very much? It is almost like flying a Cub. When I am sitting in the pilot's seat, when it's adjusted for me, I can see the track on the hangar floor about 8 feet in front of the tires so you lose so little by being off center with that engine arrangement. On wheel-skis, it is just a fabulous piece of machinery. I flew it up in the mountains for the Park Service. That, plus the ability to go up and make the turn. When you don't know the snow conditions real well and you want it pretty close to the fall line, you pick a pretty steep spot on purpose and that always creates the problem where you go up and make the turn. Then sometimes you turn too close to the fall line and then you got to go and then you come back and you stop in your tracks, not quite on the fall line. With the turbine Beaver, you come right around and basically go on to the fall line or a little across it and bury it in reverse and stop it. The skis cool down almost immediately and you shut down.

Jim: That would be a good airplane for hauling these people up on Mt. McKinley.

Terry: It would be fabulous.

Jim: It has served well now for 25 years, did a lot of good work.

Bruce: But then when OAS happened, it didn't fly much.

Theron: How did they decide they were going to let that run without certificate and all that?

Bruce: I'm not sure. OAS always, and still to this day, would rather that airplane went away. No one has the money to go and get it certificated. It has been so successful, they can't really say that it has got to go away. They don't like it but they don't know what to do about it. The longer I fly it and fly around, the more I get to appreciate it being uncertificated.

One advantage was getting those floats widened. I took it to the Beaver convention down there and talked to Bill Alder, the president of Sealand there. He had widened the other straight floats and I asked him if they had done amphibs. He said, "no, they hadn't done amphibs." Then I asked him if he would like to do amphibs and he said, "no, not especially." I told him that we had this uncertificated airplane that we have amphibs on and that we would like to get them bigger. He then said, "oh, it is uncertificated, then we might be interested in doing that." We got them about 4 inches wider the whole length of the float. It makes a lot of difference. They were too skinny in a lot of ways.

At first, as you know, they started out as the standard Beaver 45-80's and we knew that wasn't big enough with fuel, etc. Ward Air, down in Juneau rigged up an 11 inch extension on the back end of the floats so we decided we would try that and that helped a little especially when you are backing up to keep the tail from going down. That wasn't enough either but then I got in touch with Earnie Clark with Sea Flight down in Richmond, out of Vancouver and there again, they had lengthened – he had a couple of plugs he puts in to 45-80 straight floats to make them 49-30's. I asked him if he would be interested in doing some amphibs and he said he would be happy to try. So he did and we had that 11-inch extension taken off and the other one stretched and made into 49-30's so that helped a lot.

Still, as you know, that is a heavy airplane. That's when I found out about these widening floats. They looked a little funny but they work great and you have this big

nice wide, full length area to walk on and then it is just like the 49-30 float because it is all from the step up. Once you get it up on step, it is a 49-30 float. It just gets you up on the step that much quicker and it feels nice and stable on the water. Before, if you had much of a crosswind, it was better to back it around with the water rudders to get it lined up because it wouldn't turn against the wind. This is just like a regular floatplane; it would turn right around. Plus, we got to keep those big landing gears, which we really like. My cost was a fourth of the cost of getting the whip line float. You wouldn't have near the float but you would pay a lot more money for it. It was sort of a win-win deal. There again, I mentioned that to OAS and a bunch of people there said, "oh no, that is not a very good idea."

Jim: It sat for several years. They didn't have batteries for it and then they started taking parts off of it and I think Jerry Lawhorn alerted Hank Hansen. It still belonged to Fish and Wildlife. It had never been transferred. Hansen said, "well, we are going to use this plane 'Outside' so put the parts back on and we are going to send it down South because we need that kind of an airplane." Then they didn't want to let it go. They thought apparently it might be successful somewhere else. They put it back together with some batteries that Norm Brunquist had complained about. They had come in another airplane and he got them replaced on a guarantee but then they never asked for the ones that he rejected. We flew around with those rejected batteries for quite a few years.

Bruce: We had them overheat a few times too. One time, Jim and I were doing a survey and the temperature was going up and up and up and we finally landed in the Yukon River. Fortunately, it was the big battery on the outside rather than the one on the inside. We opened the door quick and stuck it right down in the river and cooled it down. That gave me the idea when we took it down to Viking that it would be nice to have that other big one on the outside where you could get to it. We knew we were going to have a weight and balance problem because we took a lot of that heavy old radio gear out of the back end of it. We were going to need a little more weight back there so we took that big battery and they built another. They just took another box out of a standard Beaver. Now we have the two big ones where you can get at them and it turned out that when we

did the weight and balance, it only shifted 1/10th of an inch so that was a good solution to that problem.

Jim: Norm Brunquist used to say that you really have to watch the temperature. There was a temperature gauge for each battery. He would say that if you get it too hot, those things have been known to volcano!

Terry: A thermal runaway is just that – where it becomes now the circle. It starts to destroy the nylon of the _____and the _____ short one to the other and they have gone, they figure, to over 5,000 degrees. One in an Aero Commander went out of the battery box, out of the stainless part, and it went down against the airplane.

Jim: We got that hot battery out of the airplane and stuck it in the river and we thought, gee, it might be kind of fun if it did go ahead and volcano. We could see what it really looked like, but it didn't. It just cooled off.

Terry: That was just the very best thing that you could do, change the cortex, just like a fever. The fuel in the airplane - ----- (static from moving microphone – can't hear words) ----------
For you to use every drop of fuel in the airplane for gravity to continue to function and probably if you lost gravity then probably you could stay aloft forever. All you need is gravity to burn every drop out of the airplane. Their thought process in the drawing room was, we don't want to end in the middle of the Gulf and having 200 gallons that we can't get to.

Bruce: When I showed up there and I was going to take that Beaver down to Southeast, I tried to pick his brain (??who – Brunquist?? Theron?? Cropp???) because I knew he knew about Southeast. He told me a lot.

Terry: We would converse for hours. He would be working on that thing. He was an absolutely perfectionist, like the flying part. I remember the turtleneck had these

extrusions that you bent on the shrinker that you formed. I walked in there one day and he's got two – he's got the front one and the back one and now you are trying to put the strings and now you are trying to make the ones that go in-between. That is pretty tough but there is enough extrusion on the floor that you can't even see the color of the concrete. He was doing a gorgeous job. I forget what I was building in the engine shop about that time but we spent hours back there together. In a normal conversation, there would be the drop of wisdom that you recognized that you would just want to put it in bold print over your bed and see it every morning. It was just one of those things.

Bruce: One thing I learned from him and it's nothing he ever said but I was practicing with the Beaver and I came into fuel. That is when the fuel was right there by the hangar. He had helped me fuel and he was standing there. I went in to go to the restroom. I was going to go right back out so I just left the rope right there. I didn't hook it up or anything but when I came back, the seat belt was hooked through the yoke and he never said anything. I am positive he climbed up in there and saw that the controls were not locked and he locked them up. Every time since when I leave an airplane, I always think of that man.

Terry: Just the subtle facial expressions of somebody that has been doing it for so long and you turn around and they are looking at you and you realize that maybe you should do this a different way. Dad used to kind of teach that way. It was always not "don't do that" it was "if you keep doing that, this is what's going to happen."

Jim: I remember going over to Sitka from Juneau in the Goose. Ray Woolford was flying and Cropp was sitting in the right seat. Ray had been flying the Goose some and they had that nice ramp and pullout and turn-around there. When Ray pulled around to depart, he wasn't quite lined up with the ramp and he pulled out and hit the brake and down he went. Cropp, in a nice way, kind of scolded him. He said, "you never go down a ramp starting from a turn. You get lined up before you start down in case the brakes don't work."

Terry: Yes, and the brakes not working is nothing more than a slippery ramp like the one at Seal Cove. When you go over the crest of that thing you have got it absolutely dived straight and the tail wheel locked up so that if things start going to hell you can let it go. I don't know how fast you could be going and hit the bottom but you don't have any choice, because God help you, if you ran off the side of it, that would be worse. People have gotten crossed up with the Grumman's or any amphibians. They turn down some old wooden ramp, kind of half cross wise as they start down the hill and the tires slip on the greasy part; the tide is now going out and now the airplane is all crossed up. I have never been there but I've seen pictures of both amphib float planes and Grumman's cross wise on the ramp with one gear off to the side. It was just a slippery ramp thing where they weren't prepared to let go of the brake. Even going down the OAS ramp, even though it is fresh concrete on purpose, you always brake as long as it is steering fine. As soon as anything started to go wrong, instead of pumping on the brakes, you would let go and then it would go straight and you would be in fine shape. Going off the side of about any ramp usually ends up in paint transfer, etc.

Theron: Tell the story about one time we were at Seldovia. We had the Goose coming up and turned around like it did numbers of times and the brake on one side just gave up completely and I was about ¾'s around; slipped off and hit a piling.

Terry: We bent the end just a little bit by the nav light. Seldovia used to be the "big" place. Kenai was nothing, just a little community at the mouth of the Kenai River. The huge Anderson Dock was in Seldovia. We would go into Seldovia on a regular basis, sometimes multiple times a day. We would go over to Port Dick, Rocky Bay, English Bay, back into Seldovia to pick up an enforcement agent that had been left for a hearing or something.

Jack English was one of the attorneys there and he had an alcove or opening in the dock piling but the Goose looked quite miniscule in there. The pilings were 20-25 feet tall and you go storming up in there, it was just like going into a closet. Emit Soldin tells this story just with a little subtlety to it. I never know whether it's the timing or it is

absolutely true or not but he had been standing in there like a typical employee badgering you for Mallard brakes. He wanted better brakes. He didn't want the Hayes brakes anymore. There were these other brakes but they were really expensive. He said that as soon as you smashed the wing tip at Seldovia, we all got Mallard brakes.

Theron: Well, it wasn't quite that fast!

Terry: Everybody's got their place and Reeve's place was at Sand Point. They had that little strip but it was cross wise to the wind most of the time. They would come storming out of the water at King Cove or Chignik or somewhere and head for Sand Point. There was this one guy that looked like the guy on "Airplane" coming in on final approach. No brakes with a cross wind and so all you do is land and start riding them early on while the tail is still up and you still got some differential. You are riding the brakes real hard and pretty soon, as it comes down, you might have a down wind brake.

Theron: Those wheels and brakes were manufactured a long time back but they weren't very good.

Jim: Smitty, there was this story about you flying the lady Congresswoman from Washington who was the head of the Interior Committee to King Salmon, VFR, and then the weather went bad and you had to leave her there and then she helped with the finances.

Theron: There was a big meeting in Fairbanks. The next morning, it was raining. I looked out and checked the weather and I called the folks and told them that there was a possibility that we couldn't get out. I was not going to fly on instruments. I told them that I would fly around a bit then come back and then they could get on the airplane. I guess we spent more than an hour trying. We came back to King Salmon, we couldn't get through. As soon as they left, then I got up on instruments and came into Anchorage.

Jim: So she was convinced that you needed a better airplane?

Theron: Everybody else decided that. That was the beginning of the building of the airplane.

Jim: That was Julia Butler Hansen? She was Interior Appropriations Committee. I guess it pays to abuse your passengers sometimes, huh. I haven't heard anything of her in a long time.

Theron: This one person, anyway.

Jim: We had the Regional Office in Juneau. Then at Statehood, we worked under Portland for awhile and then it came back here to Anchorage but there were quite a few gaps in things there. For awhile when it first went to Portland, we weren't getting much direction out of them. We could pretty well do whatever we wanted for awhile. The money and the people were disappearing pretty fast. I had a few years there where I was pretty free – as long as I turned in my surveys, that seemed to keep everybody happy.

Theron: For a while there, after Clarence, we became a State fairly soon, they would send me a letter about every month telling me that I might be fired, might not have any money and that sort of thing. I would have stayed quite a long time but then it appeared it just wasn't going to work at all.

Jim: It was just before the Statehood vote when Clarence disappeared. I saw him about a week before that. He gave us a little spiel about how this Statehood thing was going to pass. He said we would be losing some money and some people and it will be down in a little while, but in 5 years, we'll be bigger than we ever were. He had it all planned out and a week later, he disappeared. If he had hung around, it would have been quite a different ballgame.

Theron: He was just determined to get out of there and he just couldn't make it.

Jim: I guess I always liked Woolford's theory that it wasn't Clarence that did that, that he was sick or something and Fredrickson was trying to get him out of there. Fredrickson was nervy enough to try something that he didn't know how to do. Clarence was pretty caddy, really, he had done a lot of tough flying. In those days, they didn't fly instruments but sometimes they taxied instruments around in Southeast. He was almost like a coach. He built a team then he would monitor the play and shout at the umpire every now and then and shout at the players from time to time. Now nobody is hardly familiar with that name anymore. I was glad to see they had a little plaque at the refuge headquarters there in Bethel that describes how the refuge was initially named for Clarence Rhode. He isn't 100 percent forgotten but not many people know who he was.

Theron: One thing that I can say about the turbine Goose is it came along at the right time when all these people were around deciding that we were going to have a State. Day in and day out, people would come. One time there were about four people showed up and wanted to cover half of the state. I told them that I had about three days. I had instruments and I could go just about anywhere. The third day, I had flown for 20 hours – that was about the end of that day!

Jim: I remember you were really holding things together with your fingernails there for awhile, drumming up BIA business, getting money from any agency that you could. If you hadn't held that thing together that way by flying for a variety of other people, there would have been nothing to turn over to OAS.

Theron: Who do you have doing your engines now?

Bruce: We had it refurbished by Viking. The 100 hours, we get done here in town or at Viking. They do a good job. They tear the airplane clear down and build it back up. They learned a lot about that airplane. They really liked the idea of the fuel in the wing. They may copy that.

--end of Side B, Tape 1—

--end of interview

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