BS: This is an oral history interview with Mr. Fred Austin taken as part of the Polar Oral History Project, conducted by the American Polar Society and the Byrd Polar Archival Program of the Ohio State University on a grant provided by the National Science Foundation. The interview was conducted at Mr. Austin's home in Reno, Nevada, by Brian Shoemaker on the 4th of September in the year 2000.

Mr. Austin, about 25 years ago this November, you and Harrison Finch flew around the world via the Poles and you're the first two to have ever done so. These things don't just happen. It takes a good deal of planning, fund raising, (cajoling?), leadership, prior to take-off. You just don't say one day, "I want to go." But, you brought a lot of yourself to this. Your background - you were a very experienced pilot when you came. That was obvious, but there's more to it than that. So, we'd like to start you off where you came from, where you hailed from, how you got into where you were educated, and how you got into flying. And just carry it forward from there through the Polecat.

FA: I learned to fly in a little place called Trona, California, on the Mojave Desert in a single engine bi-plane. And my instructor got a job with Western Airlines in 1935, the year after I'd learned to fly. And we thought the job for him was just for the summer, so he turned his
airplanes over to me and I ran the fixed base operations for him and continued to do that for several years as his job . . . he stayed on with Western. When I had about 1200 hours of flying time, I got a job with Catalina Airlines flying between San Pedro and Long Beach, California, and Catalina Island in twin-engine Douglass Dolphin Amphibians. And I was there about two years, and then got a job as a co-pilot with TWA. And went to work in Kansas City and flew as a co-pilot for two years and got checked out as a captain.

BS: *Which year was that ?*

FA: That was 1942 when I got checked out as a captain. I flew with TWA in all of their types of airplanes, starting out flying from Kansas City to New York and then all of the TWA's routes and in 1947, I went to the international division and flew to Europe for three years - all through Europe.

BS: *What type plane?*

FA: Those were, in the international division, they were DC-4s. I'd always flown DC-3s domestically and then on that operation, we started with DC-4s and about a year after I was there, we got Lockheed Constellations and so I flew the whole series of Lockheed Constellations for several years - three years to be exact. And then returned to the domestic operation in Los Angeles. And then I had several years of experience with TWA and then finally wound up as director of operations in New York and from there I wanted to go back to California, so I became the chief pilot of TWA in Los Angeles in 1959, I believe it was. Yes, 1959, and remained in that job until I retired. And there I was flying the Constellations and 707s.

BS: *And you flew as chief pilot for TWA out of LA for how long before you retired?*
FA: About 6 years.

BS: So, you retired about 1967, '68?


BS: OK. So, you retired from TWA in 1967, but the Polecat flight was shortly before that.

FA: 1967, yeah.

BS: '67. So, how did you... had you flown across the Arctic as TWA in the international?

FA: No. No, mostly that was to Europe. In 1943, I flew a flight up to the Aleutians and through Alaska and up to the Aleutians for TWA, but... and spent one summer basically flying the Aleutian route carrying...

BS: Troops?

FA: Carrying servicemen out to the Aleutians and to Nome and places like that in Alaska.

BS: That's while the fighting was going on with the Japanese there?

FA: That's right.

BS: Did you see combat with... or come under fire?
FA: No. One of the first trips I made to the Aleutians, we landed at Umnak which in those days was the last American Base in the Aleutian Islands and when we landed there, we were only on the ground a short time and the commanding officer came to me and he said, "Captain, you'd better get fueled up and get out of here." He said, "We've just had three Japanese planes attack us and we shot down three Japanese planes."

BS: That was your Arctic experience. Well, it sounds like you had quite a career with TWA and that's another subject. But it certainly gave you a background for long distance flying.

FA: Right.

BS: And, what made you think that you could fly? Had flights become routine by then across the Arctic?

FA: Well, no. Why we made the flight is really what you're saying.

BS: Yes.

FA: And I attended an Explorer's Club meeting with Harrison Finch, my TWA associate, in 1964, I believe it was. And Lowell Thomas, who then was President of the Explorer's Club, in his speech that night, talked about the fact that all of the flights in the lower atmosphere had been done and there really were no more flights to be done in the lower atmosphere. And on thinking
that over, I told Harrison, "Well that really isn't true, because no one has flown over both Poles and no one has flown around the world without refueling, so there are at least two more flights that need to be done." And from that, Harrison and I decided that we should investigate flying around the world over both poles. And from that we started an investigation of what it would take to fly around the world over both poles. And we worked at that for about a year, really, practically full time, trying to line up money and trying to line up airplanes. Most of the airlines, all of the airlines were very negative about leasing us an airplane and finally we went to the Flying Tiger line - Bob Prescott who then owned it - and talked to Bob about it and he was willing to lease us a 707B which was the latest model of the 707 at that time and from there, once we had the airplane, then we started out to . . . or continued to attempt to get money raised and Harrison knew John DuBoise who was a member of the Explorer's Club who lived in, I'll never forget, John DuBoise lived in DuBoise, Pennsylvania, and he owned Dupe, the DuBoise Iron Company in DuBoise. So, he suggested that we talk to Rockwell - Colonel Rockwell - who was the chairman of Rockwell Manufacturing Company and see if he had an interest. So, Harrison and I called Colonel Rockwell and his son, Al. Talked to his son, Al, actually, and he was interested. His father's wife had just died and they were trying to find something to interest his father. And he thought that perhaps a project like the polar flight might be of interest to him, so we worked with him and he finally agreed to finance our flight. He gave . . . paid it, eventually paid us $250,000 to do the flight.

So, from there, everything began to fit. We had the airplane, we had the money and we decided to do it as a scientific exploration. And . . .

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BS: What kind of science did you hope to do?
FA: Well, we got together a group of scientists. A lot of them that we knew like Serge Korff who was a scientist in cosmic radiation at Ormby University and we were quite interested in doing some clear air research on . . . turbulence and clear air research and we finally wound up doing about 27 different experiments that we carried on the flight. And one of them was the first inertial navigation system from the Litton Corporation and that worked quite successfully. We did a lot of research on the composition of the atmosphere and found that there are great masses of air, pockets of air, in the atmosphere and we had the head, at the time, of the United States Weather Bureau, a man by the name of Captain Newt Laurent, of the Navy, went with us on the flight. I had known Newt at TWA. He'd been a meteorologist at TWA. And he did a lot of the research on the composition of the atmosphere. Serge Korff, Dr. Korff, did a lot of research on the cosmic radiation and we had Loren DeGroot from the Waynes Corporation, Waynes Navigation Company, that did research on finding the location of . . . navigation research on celestial navigation for use of the astronauts in outer space. But, altogether, we did 27 different experiments.

BS: So it was a scientific flight.

FA: It was a scientific flight, right.

BS: Did you have a Chief Scientist that coordinated all of this?

FA: Yes. The Chief Scientist who coordinated it was Dr. Serge Korff of Columbia.

BS: But, he also did cosmic ray research.

FA: Yes, right.
BS: *So, he was the Chief Scientist, but you took some others. You took Rockwell. Now, this wasn't Allen Rockwell that came, it was . . . he was the son, right?*

FA: No. Al was the son, and he later became Chairman of Rockwell International. But his father, Colonel John Rockwell, had asked if he could go on the flight from Los Angeles to Honolulu and he thought it'd just be a nice flight for him to participate in.

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So when we got to Honolulu, he was enjoying his trip so much that he asked me if it would be all right if he could go on around the world with us. So, I was quite pleased with that and of course said yes. And I fixed up one of the bunks just behind the cockpit so that he could be very comfortable and he went with us all the way around the world. At the time he was about 72 years old, as I recall.

BS: *He was 72 at the time. By the way, how old are you now?*

FA: I'm 85 now.

BS: *A young 85. OK. So, you got the money. You got the science program lined up. You've got the aircraft.*

FA: Right.

BS: *And, did you do any test flying or anything before hand? You knew what your fuel consumption would be, or anything like that?*
FA: It was pretty cut and dried. We had been flying 707s for a couple of years by then, or more than that. And so we really didn't need to do anything like that.

BS: *This was a pretty new aircraft.*

FA: Yes. It was a brand new aircraft for the Flying Tigers out of Boeing. One of the things that we did have to do, we knew we had to extend the flying range. And I had a friend in Los Angeles named Joe Shurtsinger who was doing some work for the military in the construction of flexible fuel tanks and he had set up a corporation in Pasadena to build portable fuel tanks for the military. And these were made of fabric and tied down with straps.

BS: *Bladders.*

FA: Bladders. They were bladders, right, exactly. And so he made us a couple of tanks that carried a total of 4000 gallons between the two - 4000 gallons. And we installed those in the main fuselage of the 707 and that work was done by the Flying Tigers and the Boeing Company.

BS: *And so this was somewhat experimental too.*

FA: It was very experimental, right.

(200)

BS: *OK. Tell me about the flight. Where'd you start? The flight began in California, right?*
FA: Yes. A big air show was taking place on the day we were ready to leave in Palm Springs - one of the first big air shows in California. And they wanted us to take off from there. So, we got our people together and we should talk a little about the people that we carried on the flight.

BS: I think that would be good before we talk about the flight.

FA: We carried, as I recall, we had 27 people - 27 passengers on the airplane either as observers or as participating in the very experiments that we did. And we carried a crew of 5 - 5 pilots.

BS: Five pilots?

FA: Five captains.

BS: Who were the other captains besides yourself and Harrison?

FA: Well, Harrison and myself and the first person I asked to go was Captain Bob Buck of TWA who was a very senior international pilot who had more time practically on the North Atlantic than any other pilot at that time. And I also asked Jim Gannett who was a test pilot at Boeing and who had participated in all of the heavyweight test flights done by Boeing. And that was going to be our crew, but a few days before the flight, I was talking to Prescott and he was quite unhappy that he figured he wasn't going to get as much publicity as he would like to have from the flight. So, in discussing it with him I said, "Well, why don't you put a skeleton crew of Flying Tiger pilots and that will give you the publicity that you want." So, with that, he assigned a flight engineer and a navigator and a pilot.

BS: Who were they?
FA: Uh, a captain with the . . . I can't remember the name.

BS: Well, they're in the report, right?

FA: They're in the report.

BS: OK.

FA: So that made up our flight crew.

BS: So you had a crew of five captains, and then an engineer and a navigator.

FA: Three flight engineers and three navigators.

BS: OK.

FA: And John Larsen was the chief navigator who had been TWA's chief navigator when I was there and John did all of the minute planning. Harrison Finch laid out the basic plans of the navigation and then John put the finishing touches to it.

BS: So Harrison said, "Here's where we'll go from here to here to here." And then John came along and figured out how long it would take and headings and . . .

FA: Harrison did an awful lot of that, but John did put the final touches to it.

BS: So, how did you decide . . . well, first of all, that's your flight crew. Total flight crew of 5 captains, 3 engineers and 3 navigators.
FA: Eleven and . . .

BS: That's eleven.

(250)

FA: And we had one man went along that we called our communicator, Goody Lyons, who was also a pilot with TWA and he acted as our . . . we called him our communicator, but that wasn't a very good title for him.

BS: Did he handle publicity?

FA: No, getting the clearances.

BS: Clearances. Oh, yes, OK.

FA: Clearances required for the flight. He did a lot of that work.

BS: So, you all met in Burbank.

FA: We met in Burbank. Took off from Burbank and went to Palm Springs and after a short stop there, we went to Honolulu which was actually the beginning point of the flight. We wanted to stay as close as possible to the zero and 180 degree meridian and so we were in Honolulu about two hours, fueled up and went directly over the North Pole. We flew . . . most of the whole flight we flew at 37,000 feet. We wanted to get a narrow strip of space on the whole flight at the same altitude for scientific purposes so we flew the whole flight at 37,000 feet and we went over the
North Pole and down to London. And we had planned to land at a military field outside of London, but as we were on our approach to London, the field socked in - closed in - and we were forced to go into Heathrow for fuel. And then we found that the runway was such at Heathrow that it was restricted and we would have to land . . . we had planned to go from London to Buenos Aires, direct, but we couldn't get enough fuel because of the distances of the runway - restricted runway - so we decided to go to Lisbon and fuel up at Lisbon, which we did.

(300)

And then we went from Lisbon to Buenos Aires, fueled up, and we were only there about two hours. And went right down, went due South over Chile and across the Antarctic. And circled the South Pole several times.

BS:  *Could you see the base?*

FA:  Yes, we had a beautiful day and perfect visibility. We could see all those mountain ranges in the Antarctic which was just a beautiful sight.

BS:  *You flew right down the Transantarctic going to Christchurch.*

FA:  Right. And we talked to the people based at the Antarctic Station. We talked to them on the radio and one of the interesting things is that Bernt Balchen, who was one of our passengers I'd asked to go along on the flight, we put him in the left seat and had him circle the South Pole. He had flown Byrd over the North Pole and the South Pole.

BS:  *He didn't fly him over the North Pole. That was Floyd Dennis.*
FA: Well, that's right.

BS: *But he did the South Pole.*

FA: That's right. I'm sorry.

BS: *So, he circled the South Pole as he'd done back.* . . .

FA: He had flown over the North Pole.

BS: *Oh yes. Many times, yeah.*

FA: So anyway.

BS: *He was based in Greenland and he used to do a lot of.* . . .

FA: So anyway. . . we put him up in the left seat and let him circle the South Pole which he was very pleased with. And we were very pleased.

BS: *That was neat. Now did he get to make the approach to the Pole and . . . or you gave it to him after you made one of the circles.*

FA: That's right.

BS: *OK.*
FA: And so one of the interesting things is that we circled the Pole maybe three or four times - four times as I recall. And the question then is, what direction do you go? Everything is North. So, we put the navigators to work then.

BS: Take a sun shot. Figure out 90 degrees. Look at your watch.

FA: And then we went from there to Christchurch, New Zealand.

BS: You mentioned that you took the first inertial navigation system along.

FA: Yes.

BS: How did it work.

FA: It worked fine.

BS: How did it work at the Pole?


BS: There wasn't any air . . . where it kind of went haywire or . . . at the Pole?

FA: No. The only problem . . .

BS: Some of the later ones did. They had problems with them.
FA: The only problem that we had with the inertial navigation system, on our first leg of our flight, when we shut down at Honolulu, the power went off of the buzz and we lost the inertial navigator . . . the gyros of the inertial navigation system and so then we had, when we got ready to go, we realized we had to fire up the gyros to get the gyros rotating again before we could use the navigation system. So, we real quick worked out a fix so that whenever the airplane shut down, we always left the inertial navigation system on from then on.

BS: *Aux power into it and.*

FA: We kept the power on all the time so that we never had any problem with navigation from there on with the navigation system.

BS: *And that was the very first one.*

FA: Yeah. First Litton navigation system.

BS: *Oh, but they built the first inertia navigation system, did they not?*

FA: Yes.

BS: *Was Joe Portney involved? Did you know Joe Portney?*

FA: No.

BS: *He was their navigator guy that worked.*
FA: The three fellas from Litton were Peter Meskita, and Dr. Burendahl and a Japanese fellow, Jim . . . I can't remember his last name. But they were the three fellas from Litton. But, no, the Litton system worked great.

BS: Yes. Well, great. That was historic.

FA: That was it. Yeah.

BS: Very historic. So, you flew on to Christchurch.

FA: Yes, right.

BS: Did you get a good reception there?

FA: It was in the early evening and I don't think anybody knew we were coming.

BS: At Christchurch? Did you go to Christchurch or Auckland?

FA: We went into Christchurch.

BS: You went to Christchurch.

FA: But that isn't true. Because we did have a small reception there, including the - I think it was the Commanding Officer of the Antarctic.

BS: Was that Jim Reedy at the time?
FA: No, it wasn't Jim because I knew Jim.

BS: *Jim Bacudas? Fred Bacudas?*

FA: I think that was . . .

BS: *Admiral Fred Bacudas.*

FA: Yeah. He met us there. So, we were only there about two hours and took off for Honolulu.

BS: *Fred was a great flier - World War II.*

FA: Was he?

BS: *Yeah. Quite a record.*


BS: *So Jim had left and turned it over to Fred then, and that's about right. Yeah, '64, '65. Jim flew his flights from South Africa across With Lowell Thomas in '63 and then another in '64.*

FA: Right.

(400)

BS: *So, I'll bet Lowell was disappointed not making the flight.*
FA: Yeah, he was very disappointed.

BS: *But his son came along.*

FA: Yeah.

BS: *And you mentioned that his son handled some special communications back home?*

FA: Yeah. We had this single side band set up. It worked perfectly. We had voice communication through Collins Radio. We did their headquarters in Cedar Rapids, and we'd broadcast to them and they would put us into the telephone system and we could talk to anybody we wanted to just as if you were making a telephone call at home. In fact, I talked to my wife in California from the South Pole which I thought was great.

BS: *Yeah. Was this one of the first single side bands? I don't know when they came along.*

FA: Yes, it was.

BS: *So, you did pioneering work on communications on this flight then too.*

FA: Yeah. And Collins were great. Collins had loaned us an operator. I think his name was John DeMuth. And he did yeoman service for us. He was really great.

BS: *Well, it wasn't long after that - '66 - we had single side band in all of our aircraft. Didn't take long.*

FA: Right.
BS: *Didn't take long.*

FA: We had, in '66, we did the jet commander flight around the world on which we took Arthur Godfrey. But, we had single side band on that which worked great.

BS: *Yes. So, you flew into Honolulu and that did the around-the-world.*

FA: That did the around-the-world and that's where we completed our flight.

BS: *And back to Burbank.*

FA: And just ferried back to Burbank.

BS: *Publicity there? Was there a lot of publicity? News organizations?*

FA: Yes. One of the things I started to say about trying to raise the money for the flight and to get the publicity for the flight in the beginning, we had an attorney - my attorney, actually - in Los Angeles was one of the few men I have ever known who had graduated from both Harvard and Yale. His name was Dave Saunders - really a great guy. And Dave set up a corporation for us called Geo-Atmos Explorations - Harrison and I.

(450)

BS: *Geo-Atmos.*

FA: Geo-Atmos.
BS: *Like atmosphere?*

FA: *Um-hum.*

BS: *Geo.*

FA: *Atmos ..*

BS: *Corp. And that was to fund . . .*

FA: *To take care of the financing for . . .*

BS: *Money coming in. They took care of publicity as well?*

FA: *Liabilities and that sort of thing. And that worked quite well. But in trying to think of getting publicity, Dave Saunders, the attorney, said, "Well, the next time you're in New York, go up to . . . go to the New York Times and ask for Bunny Loeb at the New York Times and he said, "He will probably help you." So, my next trip to New York, I went up to I think the 44th floor of the New York Times Building not knowing what to expect and I asked the receptionist if I could speak to Bunny Loeb and she disappeared for a while and a few minutes later, I heard this real loud voice say, "Show him in. No one has called me Bunny Loeb in 30 years!" And I believe he was the publisher of the New York Times. And so he was great. He assigned a couple of fellas to us - a couple of reporters to us and we got good publicity.*

BS: *You took the reporters along?*
FA: NO.

BS: No. But they handled the publicity.

FA: They handled all the publicity. But they were great.


FA: Oh really?

BS: Yeah, they helped set it up. Sulzburger and now Sulzburger, Jr. He's our contact and we can use any of their stories. They print them without permission. Blanket . . . yeah.

FA: No kidding.

BS: Yeah. They're super.

FA: So, anyway, that was . . .

BS: So, did you get any post-flight festivities or honors or awards or . . . ?

FA: Oh, yeah, we got a lot. We got a lot of publicity. All of the . . . a lot of the aviation magazines carried it. And a lot of newspaper publicity. I've got files and files and files.

BS: And did you do a scientific report?
FA: Just that one.

BS: So, you did a scientific report of the Rockwell Polar flight. And you did a brief synopsis on all of the work that was done.

FA: Yes, exactly, right.

BS: We'll make this part of your jacket.

FA: OK.

BS: So, Dr. Korff. Did he coordinate putting this together?

(500)

FA: Yes.

BS: I figured he did. So, he was the coordinator for putting the flight down or all the work from the flight down in print.

FA: Yes. I need to make one correction, I think. As I think back on it, Dr. Serge Korff was a professor at, I think, New York University. I said Columbia, but I think it was New York University.

BS: Doesn't matter much, but we'll find out. He was heavy into the Explorer's Club.
FA: He was very active in cosmic radiation. He had done cosmic radiation experiments all over the world.

BS: *The cosmic ray guys got the International Geophysical Year started and the Father of that was James Van Allen. The Father of IGY and all the work that went on. He's the cosmic ray guy and of course, the Van Allen radiation belts.*

FA: Yeah, right.

BS: *I could tell you a story after we're done with this. So, I'm sure he must have - Dr. Korff must have coordinated this with NSF then so you linked into their research.*

FA: Yes. Right.

BS: *So when the flight was over, you were still chief pilot with TWA.*

FA: Yes.

BS: *Went back to work and retired a couple of years later.*

FA: Yeah. Actually, I'm trying to think of the year . . . '65.

BS: *Well, this was '65. November, '65.*

FA: Yeah, '65. I'm trying to think about . . . shortly after that, I went back on the line as a line captain. I wanted to fly the 707s and get some jet time, as much jet time as I could before I retired.
And did that for about a year, and then retired.

BS: *I see. So you retired about late '66, early '67.*

FA: Right. And I retired in '67.

BS: *What did you do after that?*

(End of Tape 1 - Side A)

(Begin Tape 1 - Side B)

FA: So, I'm trying to think of the circumstances that . . ., I had made annual trips to London to meet with the insurance companies to try to keep reducing our insurance costs and became acquainted with some of the commuter airlines over there. And through that, I met Sir Philip Foreman, who was the managing directors of Shorts - Short Brothers. They were, at that time, they were the oldest manufacturer of aircraft in the world, having built airplanes for the Wright Brothers in 1906. And they were the largest employer in Northern Ireland. They were based in Belfast. It was an English Company but based in Belfast. So, we got well acquainted with Sir Philip and he asked me to take over, be President of Shorts USA - Short Brothers, USA - which I
did. And just at that time, they were in the manufacture of a 30 passenger commuter airline of which there were none at the time. And shortly thereafter, we were able to get the FAA to approve 30 passenger commuter-type airplanes. And were quite successful in their sale.

(150)

BS: *What was the designator of the 30 passenger one you manufactured.*

FA: Airplane was the Shorts 330 and later the Shorts 360. And the time that I was there, we sold 150 of them. Generally, to United States markets. Some in Europe, but not very many. And I was there until I retired at the age of 70.

BS: *Moved to Reno then?*

FA: And then shortly thereafter we moved to Reno, yeah.

BS: *And so you've lived in Reno for 12 years?*

FA: We moved here, twelve years, yeah.

BS: *OK, you're going to add a comment on the flexible tanks.*

FA: About the flexible tanks - when we got to Honolulu, I had never really, none of us had had any experience with those and that was the first flight was going to Honolulu with them. So, when we fueled up in Honolulu and got ready for take-off, the flight engineer, Jim Jones, and I went to the aft, clear aft right behind those big fuel cells, to see what would occur. And as the flight accelerated, and got up to speed, that fuel just came back in a surge, just surged back there.
BS: *Had no baffles.*

FA: Hum?

BS: *Had no baffles.*

FA: It had baffles in it, but they weren't . . . didn't seem to me they were adequate. But, boy they surged right back against those straps that were holding it and I thought sure they were going to go. And scared the hell out of me. But they held. They held all the rest of the way around the world. But, they really surged with they accelerated.

BS: *I've used them since . . . flex tanks. They're kind of a bladder that is somewhat flat. It's pretty heavy.*

FA: Yeah, they're thick.

BS: *And there's baffles in them.*

FA: That's right.

BS: *I never noticed much of a surge. They had some in the . . .*

FA: They had big heavy straps on them.
BS: Yeah. We also had a heavy tank. A big . . . forget how many gallons. Filled the whole fuselage of a Herc almost. You couldn't fill it full and get off a lot of times. Especially if you took off on skis. Skis took a lot of drag. Well, I think we're done.

FA: OK.

END OF TRANSCRIPT