KENNESAW STATE UNIVERSITY ORAL HISTORY PROJECT

COBB COUNTY ORAL HISTORY SERIES

NO. 65

INTERVIEW WITH HAROLD S. MINTZ

CONDUCTED BY THOMAS A. SCOTT

THURSDAY, 10 AUGUST 2000

Kennesaw State University Oral History Project
Cobb County Oral History Series, No. 65
Interview with Harold S. Mintz
Conducted by Thomas A. Scott
Thursday, 10 August 2000
Bentley Rare Book Gallery, Kennesaw State University

THOMAS SCOTT: Mr. Mintz, let's begin by talking a little bit about yourself. Why don't you just start by saying when you were born and where you were born?

HAROLD MINTZ: Well, I was born May 23, 1919 in Badin, North Carolina. My daddy worked at a power plant.

TS: So you've got an engineering type background, I guess.

HM: Well, I don't know. Shortly after I was born, he moved down to right out of Rock Hill on the Catawba River and bought a farm. So I was raised on the farm in India Hook. A long time ago they tell me it was Indian tribes that lived there. I could walk out of the door anytime and go in a field and just find all the arrowheads I wanted. So there was no problem with them. But we did farm. We had bottom land, and we raised mostly cotton and corn.

TS: Now, is this still in North Carolina?

HM: That's South Carolina. Rock Hill's in South Carolina. It's south of Charlotte, North Carolina. And that was during the Depression when things were real, real tight.

TS: The Depression started in farm country before '29, didn't it?

HM: Yes, yes. And our whole family worked. I had one brother and one sister, and we all worked on the farm. It took all of us working to get by then, but we weren't poor, because nobody around us had much more than we did. So we didn't know that we were missing out on a thing.

TS: I guess your father owned his farm?

HM: Yes.

TS: But this was before electricity and before indoor plumbing and those kind of things?

HM: Oh, yes, it was. But there was a big breakthrough. He bought a Delco system. It was twenty batteries and had

an engine with a generator on it [which] would charge it. So we were the first to have electric lights. [chuckle]

TS: That must have been a flourishing business in those Delco things because I've encountered several people who had a Delco system.

HM: Yes, they worked pretty good. They were so much better than a kerosene lamp or a candle. And so we had that, we were real, real proud of it. Finally put in a well pump and even ran that off the Delco battery.

TS: Oh really? It must have been pretty powerful batteries.

HM: Yes. Sometimes you had to run the engine too. But that was so much better than drawing all that water on wash day. All the washing was by hand in a bunch of tin tubs, and that was my job, to draw all that water.

TS: Well, now, down in Georgia wash day tended to be Monday.

HM: It was Monday there too. [chuckle]

TS: Sunday was for holiness and Monday for cleanliness.

HM: Yes. But it wasn't bad. We had a good family. As time went on my brother and I--he was younger and named James Mintz--and after we got out of school, we got a filling station. He and I ran that filling station. Then about that time Pearl Harbor came along. So we sold out that station. He and I and my brother-in-law--I was married then to the wife that I have today, thank goodness--so we went to Nashville Aircraft School. Then you had to pay for your own schooling. It was about five hundred dollars, and five hundred dollars was a small fortune back then. All three of us went to Nashville Aircraft School.

TS: Nashville, Tennessee?

HM: Nashville, Tennessee, out on Gallatin Road. So when we finished up that school, Vultee was in Nashville. They were building an A-31 dive bomber. A lot of them were going to England. So they had a representative for Vultee come out there, and they hired me.

TS: Now, this is after Pearl Harbor, right?

HM: Yes, yes. This would have been in about May of '42. And so I went to work. Then they hired my brother-in-law.

TS: For Vultee in Nashville?

HM: For Vultee in Nashville. At that time they wouldn't hire brothers in the same plant for security reasons.

TS: Security reasons? They were worried about . . . what?

HM: I don't know. But anyway, I had a boss there, and I told him that my brother needed to come to work there. He said, "Well, get him up here." It was about a twelve hour drive from Rock Hill to Nashville, because there were no interstates and it was real crooked mountain roads. We went through Asheville and then Knoxville and then . . . he came up and my boss got him on. I worked there for about a year on that. Then they started building the plant in Marietta here--the bomber plant.

TS: Yes. It would have been, I guess, the beginning of the construction about the time that you got hired for Vultee.

HM: Yes. And it took them a little over a year to build the plant, which I don't believe they could do today.

TS: Probably not, I mean, something that huge.

HM: I had gotten to be lead man at Vultee.

TS: Now, what were you doing exactly?

HM: Structures on the fuselage, in production. Physically shooting rivets and bucking rivets and this kind of thing. I had got promoted to lead man, and I had about twenty-five people. The funny part of it was, some of the people that I had had been there twenty years. But after a rough start with my boss--we really were on outs at the very beginning, but we got an understanding, and he and I were good friends then. I went to him and told him that I wanted to go to Bell, because it was a lot closer home. When you quit a job then in defense you were supposed to go straight into the service. But they gave me a reference, a letter of reference, and I came on down and went out to, in Atlanta, I believe they called it Five Road Center or something.

TS: Five Points?

HM: Five Points Center or Five Road Center or something.

TS: Five Road Center?

HM: Yes. And I stayed out there all day . . .

TS: This is where Bell was headquartered?

HM: That was the employment office.

TS: Do you remember what street it was on?

HM: It was sort of between Peachtree and West Peachtree. That's been a good while ago. So they hired me. I told them at that time we were expecting another baby, and after I hired in I needed to be off a week. Then I'd come back there. They agreed to it. So I did, and my second son was born, that was Richard. So I came down and started, but the plant wasn't finished. The roof wasn't finished.

TS: Really? You'd think that would be the first thing they'd do is to finish the roof.

HM: Well, it wasn't. [chuckle] So having had training in aircraft and I knew the A&N standards and I knew the prints and the bolts and nuts and stuff like that, it gave me a little upper hand in it. So they asked me to go down to 426 Marietta Street to the old Westinghouse building. That was the training department. They were going to set that up where everybody hired in would go through the training department before they came to the plant, because there was very little experienced to pull from here. People hadn't had an opportunity to work on aircraft.

TS: By the way, how long was your training school in Nashville?

HM: About three months, full time.

TS: So you're learning riveting and everything that has to do with construction?

HM: Yes. And everything, filing and perfect squares and everything to do with the actual, on-hands type too.

TS: Now, Vultee hadn't really been building airplanes before this time had they? Or had they?

HM: Yes.

TS: They had always built airplanes?

HM: They had been. Right about that time is when Consolidated merged with Vultee.

TS: Oh, I didn't know that.

HM: Yes.

TS: Okay, well there's a Larry Bell connection there, because he worked for Reuben Fleet and Consolidated in Buffalo and then set Fleet up in San Diego, but decided not to go with them. So Larry Bell actually worked for Consolidated, you know, as a stockholder or one of the partners, I guess, minor partners in the company.

HM: Yes.

TS: You were aware of that?

HM: Yes. So they found I had had a little bit in that, and I had worked structures. Structures was the main thing we needed to get started. So they told me to pick out some people and get some instructors. Well, I picked out people. We had the benches set up and the vices and the drill motors and the rivet builders. I picked out people who, after observing them, had the ability to learn it and teach it.

TS: Of course, you weren't a whole lot different than these people. You came off of a farm too like many of them, so you probably could identify with them.

HM: Yes, I did. Passing over, I picked out one fellow by the name of Paul Story who lived in Marietta all his life. He was in real estate before he came there, but he was very intelligent, good with his hands and good with working with people. So I made him an instructor. Then what I did was just set up classes for the instructors and got them familiar with what rivets were and the sizes and all this and what size drills you use for rivets. I made them do the work too. I made them shoot rivets, everything. So they took over as the instructors and did an outstanding job. See, the thing then, people wanted to do; they gave it their all, because some of them had husbands that were fighting, they had brothers, they had daddies. They were for giving everything they had. There was no holding back. That's how we were able to accomplish what we did.

TS: We're talking now early '43 or late '42?

HM: May, '43. That's when I was talking about.

TS: So May in '43 they still don't have the roof on the plant?

HM: No, no. I got with them after I had done that and told them I was ready to come back and get on the airplane. So they brought me back and put me in Department 526--that's the rear gunner's compartment--working there.

They didn't have the jigs finished, the FAJ, that's the floor jig, where you put it together. So I just took my boys there, and it's not very big, to make part of it and we just made our own jig out of wood up on top of a table and went on and built the first six sections before they got our jig fixed. And it worked, it made it.

TS: Okay. [laughter] How large a section is the rear gunner's section?

HM: Oh, about as long as from here to that chair right there. I'm guessing.

TS: So four feet?

HM: Oh, more than that.

TS: Six feet?

HM: Yes, six, because see, you had a man that rode back there in that that did the shooting in the rear gunner's compartment. It was pressurized, and it had an armor plate at the back. We had some armor on the side to keep bullets from going in it.

TS: Of course, it's pressurized up where the pilots are, and it's pressurized back where the rear gunner is. Then you've got a long section that's not pressurized?

HM: Well, the 41 section is a nose section. It was pressurized. The section behind it was the 42 section, and that was the section where the wing was joined. It was not pressurized. The section right behind it was a 44A section. It was pressurized. The section behind it was the 44B section. It was not pressurized. And then the 45 section, the rear gunner's compartment, mated it to the 44B section, but you had a tunnel run all the way from the front section through that center section, 42, through that into the 44A section. That whole section was pressurized. Then a tunnel that ran through the 44B section into the rear gunner's compartment. And it was, oh, that big around. It was padded on the inside so you could crawl on your elbows.

TS: Very efficient system.

HM: Yes. While we were building that and starting off, the end of the shift didn't mean anything. If we had something going there we just stayed.

TS: Really?

HM: Yes, at night. And I could look up and see the stars and everything with no roof.

TS: [chuckle] What did you do when it rained?

HM: It rained in. But they were working on it at that time. So it didn't take them too long to get that finished. That was some of the last things they were getting done.

TS: Right. You said you went to work in May; so now we're at least in the summer time and they still don't have the roof finished?

HM: Oh, I'd say they had it done by the last of June or July. And I'm guessing about my dates; that's been a few months ago.

TS: Right. [chuckle] Just fifty-seven years ago.

HM: As soon as I went back in there they made me a sub-foreman, because I'd been around an aircraft and I knew the front from the back, see, and that helped. It wasn't long until they moved the foreman out of it. His name was Carl Brooks. He was from Elberton, Georgia.

TS: This is the foreman?

HM: Yes. And they moved him down into the wing department, because they were having a big problem down there. The wing department was 38. Then they had the different departments in it. So I was the foreman there. I just kept building them things and ordering blankets and these heavy pad-like blankets. I'd used up all of my little dollies to put them in. I was just setting them on the floor. Well, all this time the company was getting deferments for me. And they got to the place I was getting five day deferments. That makes a wreck out of you. It looked like I was going to go in. So the factory manager came down and told me, "Listen, you've got more of these sections than we can use for a long time, but 41 section--we're not doing any good." It is the hardest section in the airplane to be in.

TS: Now, the 41 section is. . . ?

HM: That's the nose section. He said, "How about going down there and looking at it and just do anything you want to. You can come in when you want to and leave when you want to. See if you can find something that will help us build it." He said, "All the skins have been scrapped. None of the skins will work." I remember as if it was yesterday. It'd take twenty-eight skins on that nose

section. I went down there, and they had scrapped all the skins and sent them over on the dock where they would have been cut up.

TS: The skins are made of what?

HM: Aluminum. That's the outside surface. So I went down there and looked at what they were doing. What they were doing--they were putting the big bulkheads in the jig. Then they were putting all the frames in the jig, and they were putting the stringers on. Bell Aircraft lofted all their parts. That means that they have templates and jigs over in the fabrication department. They had put small holes in every part where you're supposed to take it. A lot of this stuff you don't even need a jig to put those holes together. Well, they were going on and drilling these holes in this understructure up to full size and riveting it. It was easy to get to the rivet--no skin on. Well, you got an accumulation of tolerance. When they went to put the skins on they would not fit. They were too much off. You couldn't raise the hole size enough to use those skins. So I just got me about six good mechanics, went out on the floor, and set one of those things up on the floor; set the bulkheads, put the stringers on. We worked two shifts while we were doing it. We went in on the first shift and stayed till the end of the second shift. We did it, put the structure on. I put little set up bolts and didn't drill those holes up. We cleckoed twenty-six skins on it.

TS: You did what?

HM: Clecko. Clecko is a button that you put in the hole, clecko ply. You mash it and the little fingers on the end come together. You stick it in the hole and release it, and they tightened, and they hold. I'll show you one sometime. But you use them extensively; we used them by the hundreds. We put twenty-six skins on. Then the first jig unloaded, I put the handling fixture on it, set it in the jig, bolted up both ends to the bulkheads, and them I told them, "Fine, get in there and drill the structure up underneath there and use squeeze guns." Which are a vice type thing that'll mash your rivet. You got offsets, and you got C-types that'll get in tight places. You just handle it, air operate it and just mash this. Those jaws come together, and you set it how much you want it to squeeze, and you get perfect rivets. I had them drill it up and put the rivets in. Then we got up there and used twenty-six or the twenty-eight skins. Of course, I got all the skins back out of conservation, just barely, before they scrapped them. It was just mercury load after mercury load of it.

TS: Then a lot of waste.

HM: Oh yes. And it would have taken a long time to get more. See, it was really a shortage because everybody was using them.

TS: Does the aluminum come from Alcoa?

HM: It came from Alcoa and there were other aluminum companies too. Alcoa was a big one.

TS: Well, it sounds like the people that are getting ahead at the plant are those that have some ingenuity and creativity maybe and can kind of think on their feet.

HM: Well, yes, and at that same time that section was holding up the whole airplane. We had other sections, and we didn't have a nose section. Our schedule was advancing very, very fast. We had to get something done on that section. We were working seven days a week, just as much as everybody would work.

TS: What was your shift? You must have been the day shift if you were looking up at the sky.

HM: I was on day shift part of the time. Then after I got that going down there I was on swing shift; I was on all of it.

TS: And the day shift started at what, seven in the morning?

HM: I believe the day shift started at eight o'clock, I believe it did. But like I say, that section was holding up the whole airplane, and they needed it desperately. So I started every little scheme that I could think of to get that thing going and used any tactics. That's where I came up with a system. See, most of the people that were riveting those skins on were ladies, females. So we could keep up with everything that was going on, I set up a special board. That's a picture of it [pointing to a newspaper photograph], and I believe there's a better one there, maybe, under it.

TS: We've got a picture from the newspaper. It says, "Mariettan Harold Mintz aligns up his B-47 scoreboard." This just looks like a great, big, old pegboard or something.

HM: It is, and I had different colored rivets. Now, that was the people's names over here, see.

TS: Oh, the names of your workers?

HM: The names of the ones that were assigned at the top. Also the skin number would be in here and then the ship's serials here. You could walk up there and see the status of a ship just at a glance, how all the skins were. Also, all the people could see at a glance who was getting their skins riveted first. That was what made it.

TS: I see you've got a tie on in this picture; did you have to wear a suit and tie to work?

HM: Yes.

TS: And your badge must have been on your suit coat, I guess, I don't see one.

HM: No, I had it hooked down there on my belt. But there's another picture of that board that's better.

TS: 422 Seminole Drive, Marietta.

HM: That's where I lived when I first came back here in '51.

TS: Oh, this is from Lockheed. So this is what you started at Bell and continued at Lockheed.

HM: Yes. Let me see, maybe there's something under here, because I've got a good picture of that with Bell. I used all those kind of things.

TS: The articles reads, "Harold Mintz of 422 Seminole Drive, Marietta, has cut his paperwork fifty percent by designing a scoreboard that keeps everyone in his Lockheed plant department informed as to what's going on and to what degree, comparable to a war situation map in a military headquarters." Of course, B-47 was Lockheed when you first started up.

HM: That's the first one we built in '51, that was that six engine jet bomber.

TS: Oh, it's a jet? B-47?

HM: Oh, yes. I'll find that, because I've got a good picture of that board.

TS: By the way, I've heard stories of Bell hiring midgets to work in the nose cone, because they were smaller.

HM: I had some. Oh, yes. It was places where we'd do the primary installation, wiring, electrical, in tight places where an ordinary-sized person couldn't get to it; the

midgets worked fine. I also had them at Lockheed.

TS: Really?

HM: Yes. Because they could do things and get to it with no problem, and it didn't make them tired. A lot of times they could stand up and work where a normal person could not stand up and would be on their knees or laying over or something.

TS: So these midgets are like under four feet tall?

HM: Yes.

TS: And so they could really go a lot of places.

HM: Yes. Oh, I have some that are real good friends.

TS: About how many were there, do you think?

HM: I don't have any idea, but we had a good many of them. They worked out real good. They made good workmen. So after getting my board and getting that done, then I had up another board on the ship completion that showed how we were doing. Without asking my boss I set a date and told them, "If you'll be on schedule here we'll give you a party. You can have all you can eat and everything." So I got them going there. Then I got a contest between the day and swing shift and had boards showing that. You would see these people walk up and check that board. So I got it going. Shortly after doing that I got it on schedule. It was on schedule. And then I went to the boss and said, "Fine, now we're having a party for these people. I promised them that you'd have it." The production manager at that time was Norm Gill.

: He came from Buffalo. He and I made it real, real good. So he gave a party at his house. Now, I couldn't go back to it; it was in Atlanta. But he had a big place and had a big yard. He gave a big party. We had over three thousand people in that one section, because we had three shifts.

TS: That's a lot of people, even in a big yard.

HM: Yes. We built all of our own sub-assemblies too. Now, at Lockheed we didn't do that. They built that in another department. We just did the major components. But with Bell we built all of our sub-assemblies. We'd have rows of benches back that fed the major jigs. Our schedule was three sections a day.

TS: Three sections a day?

HM: For awhile I was general foreman there, so I had the foremen to set down and work out a schedule and send it to the Overhead Claim Department. It took that to pull them out. They were real, real rushed, with that fast to move. So we'd send them a schedule for the full week, at the end of this week for next week. What time and what day to be over there at section number so-and-so.

TS: Sounds like you're getting ahead of the number of airplanes that are being produced.

HM: No, we didn't get ahead of the schedule. Three a day. We caught up. We were way behind, and we caught up and got the line going and then got the line in the B-1 building. See, they had two lines of B-29's coming out the east door. The only way they got two lines in there [was that] the wings were inter-lapped, one between the other one, just like that. And so when you moved those lines you had to move both lines.

TS: Because the wings are about one hundred feet long, I guess, with two of them, aren't they, or more?

HM: More. And one of my experiences I'll never forget, shortly after taking over that department and surveying everything that was going on. I didn't figure we had any time to waste. It was a national emergency. They did need the airplanes. So I went back in the sub-assembly and rivet-fed those jigs. I ran into this lady that was working there, and it was pretty inefficient. So I got the foreman and told him, "Let's do something about this. We can't stand to have a hold up here." It was a hold up on stuff. Well, he evidently went to her and told her I said that she was holding it up, and she was. Thinking everything's all right, I finally went home that night. I came back in the next morning, and the first thing I got the call from the manufacturing manager. He had the production manager and the superintendent there with him. I walked in, and he says, "Harold, do you like working at Bell Aircraft?" I said, "Yeah." He said, "We just got a call from Washington, a member of the President's staff, saying that you have caused a problem with Mrs. General Longstreet." I said, "Well, I guess maybe I did." And they said, "You have to fix it." I said, "All right." I went back down and I set a bench up over at the side--this is the way it was--and told her sub-foreman and her manager to give her whatever it took to keep her busy. Then I started going by and talking to her about every day and got to be good friends.

TS: You hadn't really talked to her before this time?

HM: No, I hadn't talked to her before.

TS: She was about eighty years old, wasn't she?

HM: She was very old, and that was in '43.

TS: And so I don't think there were very many people that old that would have been working there, were there? Or did they have an age limit at that time?

HM: No.

TS: It's wartime, I guess.

HM: Yes, it's wartime. See, she was real young when she married General Longstreet. That's the reason she survived. But I got to knowing her real good, and we became good friends. It was real interesting to look at her workbench. She brought snuff cans in and had a snuff can for each size rivet and for each little nut and each little washer. It was some deal. I wish I had taken a picture of it. But we got that fixed. I had another experience one time that I thought that I was going to be fired. We were driving like everything to catch up to schedule, holding up the whole plant, holding up the flight line. We had a rejection on a skin on it; the holes on it were mis-drilled. That meant they were too big, and it meant that they had to be stepped up with a larger size rivet or either put a backing plate on or either put extra fasteners in. Engineering would answer that. Well, when we had the rejection on it, the Air Force came, looked at it, and wouldn't sign off on the rejection. Then [they] put a red tag on that whole section that I couldn't move it. Well, I had all my other work done, and that had nothing to do with any location in the jig or any part that would move out of the jig. They called me in, showed it to me, and I went over it. I talked to the engineer, and I told the foreman, "Pull it." Well, that was a real no-no. We pulled it, and put it in a pick up. You couldn't work on it either. But that was real fine. That's where I was behind in the jigs. I started another section and kept working on it. It was a lot of meetings on that section. They finally brought the colonel down . . .

TS: Do you remember what the colonel's name was?

HM: I don't remember his name, but he called me. I talked to him, and I told him why I did it and why I thought it was important. It was no need of it. It served no purpose

but to hold up this. By doing this like I'm doing, I had that section half-finished. So he looked at it and talked to me. He left, and about fifteen minutes he called me at my office. He said, "The red tag's been removed only with your word." My boss had got with me and said, "You might be in big trouble." But it turned out good, and I was thinking about moving the sections.

TS: I think that's probably what saved you is they figured out what was good for getting those airplanes out is a lot better than following orders.

HM: That was what was important, and that's what I was interested in. Well, just before getting really started on the skins that had been scrapped there, as I said earlier, my deferments had run out. I was called in. So I went back to Rock Hill and went down to Ft. Jackson and went in with a whole bunch of folks that I knew at Rock Hill.

TS: Now, this is still '43?

HM: Yes.

TS: Toward the end of the year?

HM: No, before I did this work on this section.

TS: Oh, okay.

HM: So we went down and went through. They'd say, of course, they had your record of what you'd been doing. They were asking all these boys from around Rock Hill, "What do you want, the Navy or the Army?" See, the air force was an army air force then. It hadn't changed then. Most of them wanted the Navy. As soon as they'd say Navy, and they'd say, "You're in the Army." So I got up there, and by then I really didn't care. They said, "Well, what are you playing, Army or Navy?" He said, "You're in the Navy." So it went on, and then I learned that the general manager of Bell went to Washington and got me a special deferment signed by President Roosevelt, because I was in the midst of a big deal on that section and the skins scrapped and all this stuff. So I got a deferment, and I never was called up again.

TS: This would be Omer Woodson at that time?

HM: No, no, it was Colonel . . .

TS: Harry Collins?

HM: Collins or Cover?

TS: Carl Cover came in after Woodson; Collins was first and then Woodson and then Cover came in, I thought, in '44. I may be wrong in my dates; you think it was Cover?

HM: Well, I'm not sure, I was thinking it was Colonel Cover. It was before Jimmie [Carmichael] got in charge, but he was involved in it.

TS: He was the counsel for the plant. But at any rate, this is in '43 that we're talking about.

HM: It was in '43. So I got out and wasn't bothered any more. I stayed there, and I got to be assistant superintendent. I have it in writing here.

TS: And this is still with the nose section?

HM: No, I had it all there.

TS: Oh, of everything?

HM: Of all the fuselage. It worked real good. The people worked hard, because, as I said, we had one major thing in mind. That was to get those airplanes, so they could go do their job.

TS: People talk about Bell as being an assembly plant. That's the way it's sometimes described. But this is not exactly an erector set--parts coming in and putting things together. It looks like you are making everything but the engine there, aren't you?

HM: That's right. The engines came in and special stuff like that that we would buy from vendors. But we made our own parts. See, we had a full fabrication department.

TS: So the only thing that you're really not doing there, I guess, is designing the plane. I mean, you don't have that many engineers at Bell, because it's designed in Seattle, right?

HM: Yes, it was already designed, and we've got drawings.

TS: One of the huge differences between Bell and Lockheed is that there's a much higher proportion of engineers at Lockheed. The engineering department was pretty tiny in Bell Aircraft days in Marietta, because, as you say, the airplane was really designed before you started building it, compared to Lockheed where you were designing the C-130 and so on as you went along. Would that be correct?

HM: That's correct. The same thing, the B-47 would have been like the B-29. See, it was a designed airplane when we built it, starting in '52. And we built it to Boeing's design.

TS: Right. Both the B-29 and 47 are actually Boeing planes, aren't they? One built by Bell and the other one built by Lockheed. And of course, Boeing's building them too. But things are different in wartime than peacetime.

HM: That's right.

TS: But you were saying that there was a large fabrication department.

HM: Oh, yes, we made all of our parts except the normal vendor type parts.

TS: Like, you'd buy rivets, I guess.

HM: Yes.

TS: Who makes rivets, by the way?

HM: Some of the biggest manufacturers are Hisheer and all of those in California. I have visited all of them. I don't remember all the names, but I visited all of them. When we were starting the C-5, engineering got me to go with them when they were checking out all the rivet manufacturers.

TS: This is for Lockheed obviously, the C-5.

HM: Yes, for Lockheed. So I did. I got to visit all of them.

TS: I bet that was interesting.

HM: It was.

TS: Well, let's see where we were on Bell. You were talking about the skins and getting caught up on the schedule, even though you just about got fired in the process. But I guess you got on schedule. Then do you slow down or do you keep doing three sections a day?

HM: Oh, no, three sections a day. We had three flying out of there a day.

TS: Is that right? Wow.

HM: Yes. That's the reason I think it's so remarkable that

some people really don't realize the number of airplanes that we made and flew away from there and didn't lose a one of them there flying away in the period of time that we did.

TS: It's just unthinkable, isn't it?

HM: Yes, it is.

TS: As big as a B-29, three a day.

HM: That's right. That was the biggest thing of its day. It was so far advanced over the B-17 and B-24 till there was no comparison.

TS: Now, my understanding is that the first plane went off the assembly line right about Christmas time, right before the end of the year in '43. Do you remember when that happened?

HM: I don't remember the exact dates, but that sounds right.

TS: Was it a really big celebration when the first plane came out?

HM: Oh, yes. That was a big achievement, and we were proud of it.

TS: Then, of course, the speed. Of course, you didn't know it at the time, but you only had about a year and a half before it was all over. So to get 660-some odd planes, you really had to be going fast in '44 and early '45.

HM: That's exactly right. I've heard different numbers; I've heard 663, 665, 667, I don't know how many it was. It was 6-something.

TS: Yes. Everybody's in the 660's but there's a quote from Larry Bell at the end of the war where he says 663. So I've always used that, but I think Bill Kinney uses a different number. I'm sure he's got a good reason for it.

HM: Well, it would depend on where you counted to when the war was over, because there was some good airplanes cut up.

TS: Oh, I see. Never delivered. Built and then never delivered.

HM: That's right. When the war was over we laid off a department at a time just as fast as we could make the

paperwork. They wanted me to stay and help salvage stuff off the airplanes. I said, "No, I don't have the heart to go do anything on an airplane like that."

TS: I can understand that. It actually sounds kind of silly to destroy an airplane.

HM: That's what they did. They figured they didn't need them, and they weren't going to think about next week.

TS: The contract's been canceled; so I guess the government figured they spent enough money on the war and didn't want to buy any more.

HM: That's right. Figured they didn't need them. The war was over. I went back to Rock Hill at the end of '45. I guess it must have been early October. I bought a filling station on Oakland Avenue right at the overhead bridge. That's right down below Winthrop College going to town. My brother that I mentioned earlier went in service. He was on a B-24, a nose gunner, and he was shot down on his twenty-third mission in '44. Served thirteen months in a prison camp. I really can't say a prison camp, because they marched him all over Germany in the coldest winter that was recorded in German history to stay in front of the Russians. When he got back I already had that station, and a little later we got Pure Oil distributorship. We got three wreckers, and nobody had been able to get a wrecker then. Nobody would go out at night and do it. So we had twenty-four hour, seven day a week wrecker service.

TS: What were you before Pure Oil?

HM: We had a Pure Oil station.

TS: From the beginning?

HM: From the beginning. And then we got the Pure Oil distributorship in addition.

TS: And what's that mean?

HM: Oh, we had a bulk plant, and we delivered the pure oil products to other stations.

TS: Oh, to everybody else.

HM: Yes.

TS: I see.

HM: Then we got in the construction business, and we had bull dozers and loaders and dump trucks, motor cranes and crawler cranes. We had all of Pure Oil's tank work in North and South Carolina. I took care of that part of it, and my brother took care of the station part. We stayed there till 1951. I kept getting calls to come back to Lockheed. They were opening up. I came down two or three times before I'd go to work. They wanted me to go in sub-contracts and travel. I told them no deal. I'd been away from home enough then on this construction work. I was working seven days a week, staying away from home and told them I didn't want any of it. Furthermore, the only thing I knew was production, building airplanes.

So I went to work. We were modifying B-29's, getting them ready for the Korean situation. I remembered a lot about the B-29's, having been in every phase of the fuselage. So I set up a repair shop to repair anything that was damaged on them that had to come off of the airplane. In fact, I had a sheet metal mechanic. Believe it or not, I had some of the ones that worked for me during Bell, because I remembered some of the names. After I got back, some of them knew I was out. I had a bunch of them from Adairsville, Cartersville, Acworth and all around. I got some of the same people back.

TS: This repair shop is inside the B-1 building?

HM: Yes, inside the B-1, right along there about Tunnel 4, when it comes out, right there in the final area. Then I went out and we pulled the B-29's through the B-3 building to paint. You put them on dollies, and we had cables in the floor, in the cement. They would pull them through. Well, they didn't know how to do that or what worked or anything else. I just happened to remember. So I went out and loaded the first B-29 on those dollies and pulled it into the B-3 building. Then they wanted me to go to work for manufacturing engineering, because I knew how to load and move that B-29. I said, "No deal. I don't know enough about it, and I don't want it." So then the superintendent walked down and asked me along the last of May--I came with them the 16th of April, and the last of May I got that set up--if I was doing anything that weekend. I was staying down there. I hadn't moved my family there. I said, "No." He said, "Well, I want you to go to Wichita with me." I said, "All right." He said, "You go make all the travel arrangements, get us some money, get the tickets, everything." I said, "All right."

TS: Is Boeing still in Wichita?

HM: Oh, yes. So I went over and made all the plans on a Sunday. The first of June we took off to Wichita. I didn't even know why I was going. So we got up there and he says, "I'm going to be busy, but I want you to go over and get an agreement with Wichita to loan them people to work on the B-47." They were already working on the B-47 and we were just going to start. We were working on the B-29.

TS: Oh, so you wanted to borrow some of Boeing's people.

HM: No, we wanted to take our people up there to work on their airplane.

TS: Oh, oh, I see. To train.

HM: Yes. I said, "Well, what kind of people?" He said, "Anybody. We'll have them doing the same thing at Lockheed." I said, "Well, what's some of the rules to go by?" He said, "Work them out yourself." I says, "All right." So I went in there and got the director of administration and told him that I had some good mechanics in Georgia. I had read the paper at the hotel. They were advertising for people. They needed people bad. They needed jig and fixture, tool and die inspectors, production workers, and everything. I said, "I've got them all. Let's work out a deal they come up here and work." He said, "Well, that sounds like a good deal. I'll set up a meeting in the morning at ten o'clock, and you can explain it." I said, "All right." I didn't really know what I was going to explain. I went back to the hotel that night and told Lee Poore I had a meeting.

TS: Lee who?

HM: Lee Poore. He was the superintendent. I worked close with him for many, many years. He went on to become vice president. Next morning I went to [the director of administration's] office, and he said, "Well, come on, let's go down the hall here. We'll go to the conference room." We walked in there, and I bet you there were eighty people sitting in there. He said, "Well, you just get up and explain it." [chuckle] He had all the Air Force. See they had to approve all of it. So I explained that we had qualified mechanics, tool men, inspectors, engineers, production workers, flight line mechanics, and all the different classifications. I said, "They need the experience. So we can start off, and this should reduce our learning curve. In the meantime, you need people that can come in here and keep your production going with that experience."

TS: How long were they going to work there?

HM: That wasn't even thought about at that point. So they said, "Well, fine. When can you start?" I said, "Give me two weeks." And I said, "Now, we will pay their transportation up here, we'll pay their per diem--that's eating away from home--at that time it was $10.00 a day, and that would buy three good meals.

TS: Actually $10.00 is pretty good back then.

HM: Yes, yes. Of course, we paid their hotel or motel bill. And, "We'll put them on your time block and you pay them the salary they're making."

TS: At Lockheed.

HM: "And I'll take care of all personnel problems."

TS: Good deal for them.

HM: "Any of your foremen have a problem, all they have to do is call me. You'll give me an office somewhere, and I'll take care of all of them. You don't have to take care of any problems on that." So this colonel asked me a couple of questions, and I answered him. I had just thought the answers when he asked me the questions. This director of administration's name was Phillips. I remember that much. He told me, "Get in touch with me in the morning, and you're going to talk to my big bosses." I said, "All right." I got with him the next morning, and he said, "They think that's a fine deal. We're ready to start." I said, "Good, I'll go back and get folks lined up here." So I went back. I got jig and fixture people and tool and die and engineers and production workers, flight line mechanics and everybody. I really had nothing to do with all these different organizations, but I went to them and told them, "All right, I want a supervisor for each one of these that'll be out here on the floor taking care of these people, and I want it made clear to them they report to me, not you."

TS: The supervisors report to you.

HM: Report to me because I'm there. They said fine. So I got that part set up. They gave me an office out there in an old hanger, and they gave me a secretary. I was trying to handle the expense reports. Now, some of those folks didn't have any money with them. The different people were sending their expense reports back to their department and then the steno. The foreman wouldn't like something here and would send them back to get them

redone. Well, you kill a week, and then no money. I had people who was getting hungry; so I took all the money I had and doled it out to them. Then I called the manufacturing manager. I said, "I've got people getting hungry. We've got people playing games with these expense reports. I want a man up here out of finance come Monday. I want his signature to be final, I don't want the departments to have anything to do with it. When he sends it in, I want the check sent back to him, and I want him to see that they get paid." The manufacturing manager, was Mr. Gray. He was from California. He said, "Well, Mintz, that sounds like a good deal; all right. I'll take care of it." Come Monday morning, I had a fellow by the name of Charlie Michelle. He was my finance man. I got that all squared away, and the program went good. The only thing was I had people in every jail in Wichita. I had them in every hospital at the same time.

TS: What were they getting arrested for?

HM: Little old minor things.

TS: Drunkenness?

HM: Some was that. [chuckle]

TS: What do you do in Wichita?

HM: Yes, so I went to the hotel where we had a lot of them staying--oh, I had one . . .

TS: These are a lot of single men?

HM: Single and married.

TS: Really?

HM: Yes. I had one at one of the hotels out on the main street there. He got on the elevator about twelve o'clock at night. They had girls that were operators. He got on that elevator and wouldn't let her off. I made a deal with all the managers of the hotels there if they had a problem with any of my people to call me. I gave them my number and said, "If you do that then I'll see that your hotel bill's paid. You won't lose any money on them." They thought that was a good deal. Well, they called me that night, and I went down there. As he passed one floor I hollered real loud his name and told him who I was. Then he stopped it at the next floor. What I did when I had a problem with them--I sent them back to Marietta, because I wasn't going to put up with

any foolishness. When I sent them back to Marietta they were discharged. So we had good relations with them.

TS: That guy could have been in jail for a few years.

HM: Oh, yes. We had more that was involved in different stuff. Mr. Mitchell was in charge of the Lockheed office up there. He didn't have anything to do with me or anything, but he was very cooperative. One of the fellows that had got in jail had run over a fellow, but it so happened that another car had hit him first and knocked the man over. Then he hit him with a car. So he really wasn't guilty of anything. R.I. Mitchell was his name. He went down there and everything, and he was as good a lawyer as you've ever seen. He got him out of it and off of it real quick. But that program started good, and we came back. So at the first of '52 we started on the B-47, and we got it going. I was the manager of the nose section.

TS: So all of '51 is renovating B-29 and getting ready for the 47.

HM: Yes.

TS: Tell me about the B-47.

HM: Well, the B-47 was an improved bomber with jet engines, six jet engines. I have heard it said that they got the drawings from Germany after the end of the war is how that was built. So we went on into the B-47. I had the nose section. I had hired some supervisors back that worked for me during Bell. We didn't have any problem building the nose section, and it was the most difficult section on the airplane to build. So we got it going, and I had plenty of them. Then they couldn't get it stuffed. Now, it was a real difficult thing to put all the electronics and everything in the nose section, because it was so crowded you couldn't get enough people to do everything. So that made the span time run longer. We weren't doing too good. My friend Lee Poore moved me down and moved the manager that was supposed to be doing that up in my section, I had it going good. My learning curve was outstanding, and so I went down and I did just about the same thing there. I broke it down in sections along the highline. There's a highline, and the sections run along and you can move them with conveyors that went on to the end of the line. So I broke it down and gave packages of work to each supervisor and gave him a station number. The paperwork was assigned to that number. Then he was responsible for that area of housekeeping and all of that work. If he didn't get it

done in his area, he had to go out of his area and do it. Well, that cleaned up my out-of-station work. So that went good. Then after we got that going, they were having a lot of problems with the aft section, the 43 section.

TS: The aft section?

HM: Yes. And the nose section. There was a short little nose section that went onto the 41 section. At that point they were figuring on buying that section from Chance Vault in Ft. Worth, Texas. Because Boeing was buying the aft sections from them and figured they could buy them cheaper than they could build them. So this aft section was holding up the B-47. So he moved me down there. [chuckle] Oh, they were all black. Nine hundred black employees who had never worked on an airplane.

TS: So they're all doing the aft section of the plane.

HM: Yes. Nine hundred of them. It was way behind, and the quality was terrible. The housekeeping was atrocious. I had two white mechanics in there that had to go out of there into other departments and work shortages or do any work that the department had to do on that section. That was before the get-together.

TS: Before integration?

HM: Yes. So I went down there and I got all of these people, I got big charts on what their performance was and took them in groups down to the theater. I could take about three hundred down there at a time. I went over those charts and got the supervisor that was responsible for that up there on the stage too.

TS: Where was the theater?

HM: In the basement. Down between 4 and 5 Tunnel.

TS: So you've got a three-hundred seat theater at least.

HM: Yes, at least. It might hold more than that.

TS: So you had nine hundred workers, and you took three hundred at a time down there.

HM: Yes. And showed them their charts and what they had been doing and what they had to do. I set goals on each one of them. Then I told them, "Now, I'll teach you how to build an airplane if you'll work and come to work. Because if you don't come to work I'm going to get

somebody in your place." Absenteeism was atrocious.

TS: Sounds like these are people who are poorly trained and poorly supervised.

HM: Yes. I said, "Now, you have to come to work to do your job. I can't do your job for you, but I can see that you come to work or get somebody in your place. And if you don't do this, we're on our last leg. Lockheed's going to buy this section from Chance Vault. I want to help you keep this job and go further, and I'll help you if you'll work." So then I set up a housekeeping committee. I made two black supervisors right then. I put one of them in charge of housekeeping committee.

TS: Housekeeping means you keep the plant clean and the parts washed and so on?

HM: That's right. They would go along and write up what they see wrong by area. In the meantime, I got a hold of a dirty duck. It was the nastiest looking thing you've ever seen. And I said, "The one that gets the lowest score, the supervisor has to keep this on his high boy for a week." Well, that started. I made a game out of it, I didn't kill anybody with it. You could smoke then all over the area. People just threw down cigarettes and everything else. So we got it going, and I got to giving an award for the worst and the best. Then they had a plant housekeeping committee that went through and graded you. They'd been getting the lowest in the plant every time. So we started climbing in that, and then we got first place in that. I made a game out of it. If anybody went along there in an aisle and threw down a cigarette butt, one of those blacks would come over there and ask you to pick it up. That's what I wanted. They got it going, and I had many games going on to get extra interest, and I did, I fired a bunch to get started, to get their attention. They had to come to work. And I fixed their attendance. It worked out that Lockheed didn't have to go any place else to buy it. I upgraded more blacks into supervision, and they did good. They'd follow through with what I told them. I told them, "I can either make you or you can break you. Which do you want?" So we got that going.

About that time out there Dan Haughton came by and said, "We're starting the C-130 and I want you to go over there and take over this department, 2320. We're going to build all the sub-assemblies for the first seven airplanes. We're not going to do it in fabrication. I want you to do it so you'll get them right for the rest of the airplanes." I said, "Yes sir." I went there and

got it going and got the sub-assemblies going. I had a section of that department that was blocked off. This was planned by upper management where the blacks would work. They put a row of big parts racks in between. They didn't even work together.

TS: To separate whites and blacks?

HM: Yes. So that started. Then I got to pick the people that I wanted out of that department to bring over there by name. I knew who was good. I brought them over there, and I started at night moving those bins to the edge of the department. I just moved a few at a time, and started working it that-a-way. The first thing you know I had the blacks and the whites working together, and nobody even noticed it. Dan Haughton came down there one day, and he says, "Harold, something's different. What have you done?" I said, "Well, I might as well tell you. You're going to see it anyway. I'm working my whites and blacks together. They're going to have to work together. We have to handle the work together. They don't even know they're doing it. And I haven't had one complaint." He scratched his head, and he said, "My Lord." Following that they did away with the black cafeterias, and they did away with the black restrooms.

TS: I was going to ask you about that. I'd heard stories about how they were kind of subtle in closing down the white restrooms for repairs and making them have to walk a half mile or else go to the black restrooms. Do you remember anything like that?

HM: There was some of that done. It was just sort of worked around. It was no mandate. See, we as people are funny. We'll do these things if we know they need to be done as long as we think we're not being made to do it. It was worked real smooth. We didn't have a problem. Water fountains. See, it was water fountain for the colored and water fountain for the white.

TS: How did you get rid of that?

HM: Just took all the signs off.

TS: Do you remember about what year that would have been?

HM: I'm guessing--'54.

TS: That early?

HM: Or '55. A lot of that we did gradual. You wouldn't even know it was happening.

TS: It has to be early, because these are the early days of the C-130.

HM: Yes.

TS: What about at Bell? I know Bell had pretty close to two thousand black workers. Were they ever anywhere near where you were working?

HM: No.

TS: In the B-1 building, they're just . . .

HM: Yes, in production I don't remember a black.

TS: And then with Lockheed blacks are in production, but to begin with they're in segregated areas.

HM: Yes, special projects. They were in one department. They couldn't even go over and work in this other department and finish some work that was in here. I had two whites to do that.

TS: Now, Dan Haughton was from Alabama, I believe.

HM: Yes. He was a good friend of mine.

TS: Tell me about him.

HM: Well, when I started that nose section on that B-47, he came down to see me every day and would say, "Harold, is there anything you need?" I said, "No." I was afraid to tell him anything, because there were so many people in between, you know, you'd get in trouble. I remember one time he came down, and I was really teed off because my inspection--that was before we were managers, we were foremen then--foremen had rejected all of my skins that went on that section. I looked at them, and they had superficial scratches on them which didn't matter, because it was going to be painted. It didn't affect the structure. He scrapped all of them and was going to shut me down. Dan Haughton came down and said, "Well, anything I can help you with?" I said, "Yes. Come on, let me show you." I walked out there and showed him the skins and that there was a rejection tag. They were going to scrap them. I said, "This gets painted. You don't ever see them. Paint covers them up. It gets a heavy coat of primer and then a finish coat of paint. Nobody will ever see it. It doesn't affect the structure. They should not be scrapped." He said, "All right." He went to the foreman, and he had the director of quality control--Harvey Christian--down there in about

four minutes. Of course, he got his manager. They went around and around for just about a minute. Dan says, "Get those tags off of there, and get them skins back where they ought to be. I don't want to see anything else like this again." I put my people back to work.

Another time my department for the nose section on the B-47 was up about Number 1 Tunnel right close to the final line. My office was up over the stairwell, and you came up over on this side on the steps into here. Then my jig platforms came to the outside office. I had a lot of people working on the upper deck, because a lot of the work went on at the upper part. I'd put in an order to get a door cut. Every time I wanted to see what was going on on the upper deck, I had to walk down and then back up, which was foolish. So he's over there one day in my office, and we're talking. He said, "Well, anything you need?" I said, "No." I said, "I am going to make an improvement though." He said, "Well, what's that?" I said, "I'm going to get a door put in right there. I've got the order now to maintenance, so when you want to go out on top of the jigs and check your work you can walk out." He said, "That's a good idea. All of them ought to have it in the other departments." I said, "It'll save many, many steps; not only by me, my staff, but by my people." He said, "Did you say you got an order in it?" I said, "Yeah, I got an order in it." "How long's it been in?" I said, "Oh, about a week. Yeah, they're going to get it for me." I came in the next morning. The door was in. Then he had them put them in all the other offices.

TS: It sounds like that Haughton knew a good deal about building airplanes.

HM: Well, he was such a good fellow. Like I say, I could talk with him just like I talk with you.

TS: But did he know the nitty-gritty of building airplanes?

HM: If he didn't, he'd find out. Yes, he was good and good to work for. As time went on I was in the management club and going when it first started, I guess, in 1952. They decided to have a Management Club, and had the meeting over at the Standard Club. Well, Ted Renshaw had experience before. So they got ready to elect a president of the Management Club there. Somebody nominated me, I don't know why, but they did. So we two left the room. They voted, and he was voted in as president of the Management Club. I'd go regular, and I'd take my people out of my department regular to give us a chance to get together and go to the Management

Club. Well, in '54 I was vice-president of the Management Club. They sent me to Dayton for a week of schooling. I went to different places up there. It was a real good trip and everything. Then Dan Haughton said, "I want you to be president of the Management Club. We've never had a production man president of the Management Club." I said, "All right, I will, if you'll support me." He said, "I'll support you."

TS: Now, what does the Management Club do?

HM: Well, it's comprised of people in management--it was then--and they have their regular meetings with the president in charge. We did the Progressive Club, different hotels. We used to meet at the Biltmore a lot, a long time ago. Then we'd take on projects. We'd give scholarships to high schools and everything. When I was president, the Management Club started Explorer Post 130.

TS: So this is a service club?

HM: Yes. I had been involved with the scouts at the First Baptist Church. So I got Lockheed to do it. Boy, we'd get those scouts in there and get people in different departments that were experts in their fields to come in. It was a great success.

TS: Right. When you said earlier that you met at the Standard Club, the Standard Club that I know of was a Jewish County Club. That's where you met?

HM: Yes. That was in 1952. And we met at the Progressive Club a lot. And so I got to be president of the Management Club then. Dan Haughton called me over one day, and he said, "Listen, they're forming a union, salaried people." The club was just management people then. He said, "I think it'd be a mistake for them and us too." Salaried people were way above average, like engineers and everything, to be salaried. He said, "What do you think about taking salaried people in the Management Club?" I said, "I think they'd be real good." He said, "If we could do that there wouldn't be a union." I said, "I agree with you, and we don't need a union." So I went back to my board and explained to them what we ought to do and why I thought we ought to do it. They all voted for it. So we put out the literature and we got all the engineers that wanted to join to come in and join. All the other people that were salaried jobs--we had about 3,500 members when I was president. So we got them all in and we never had a problem with that.

TS: So that ended the union.

HM: That ended the . . .

TS: Was there ever a union problem at Bell?

HM: Not really.

TS: With the machinists union?

HM: Right.

TS: But Bell didn't have a union for salaried personnel.

HM: Oh no, no, no.

TS: Say a little bit about your working with unions. Were they hard to work with?

HM: Some of them. Some of them were very difficult to work with, but I would get my chairman in and say, well, now, this is cutting the rules and regulations. I didn't make them and you didn't make them. [chuckle]

TS: Could you say a little bit more about that?

HM: Yes. The union at Bell really wasn't a big problem, because most of them understood what our goals were and were very cooperative. You get with them and talk to them and explain why it was. You could work with them and come out with a workable solution.

TS: Wartime maybe had something to do with that, I guess, didn't it?

HM: Yes, yes. Of course, in the production area, we had considerably more females in Bell than we did with Lockheed. Now, of course, at Lockheed we got them in every category and everything, but percentage-wise in production we do not, I did not have as many women as we did with Bell.

TS: I calculated the peak of production, and it was about 37 percent female at Bell by early '45.

HM: Yes.

TS: And Lockheed considerably less than that then.

HM: I would say so, yes. I'm speaking especially of production. We had some good production workers, female too, when they learned it. Everything on the electrical installation and stuff like that they're real good.

TS: I've got a picture that shows people out working on the fuselage, and you can see men and women working together and men in overalls that look like maybe they just came off the farm in Bell Aircraft days. Does that sound pretty typical?

HM: Oh yes, yes, that was typical.

TS: Even though the workers that came off the farm, like you came off the farm yourself, didn't know anything about building airplanes, I gather you gain a little bit of mechanical ingenuity by working on a farm.

HM: Absolutely. If you farm and plow a mule and keep your plows going and everything else, you'll learn a lot about that. [chuckle]

TS: So it's not like they're totally inexperienced, I guess.

HM: No, because you had to sharpen your plows, form your plows and everything.

TS: I've heard stories though about people that weren't accustomed to the time clock when they started working at Bell, because obviously a farmer doesn't have to worry about a time clock.

HM: No, just keep working.

TS: But I gather these problems don't last for long.

HM: No, it wasn't an on-going problem.

TS: Also I wanted to ask you about the people who came down from Buffalo. How did you get along with the people from Buffalo?

HM: I got along with them good, because to start off with in a lot of the management positions they were people from Buffalo with prior experience. I worked with a lot of them, and I never had a problem.

TS: And you think that's generally true?

HM: I would say overall that would be a good assessment.

TS: What about the union and Lockheed? Did the union continue to be as easy to work with as it was in Bell Aircraft days?

HM: No.

TS: Okay, could you talk a little bit about why it changed?

HM: Well, as times have gone on, times changed a lot from '51 to '86.

TS: Eighty-six is when you retired?

HM: That's right. It's an on-going thing and it depends on who's representing the union and the company at that particular time. Overall, I'd have to say that I had pretty good relations, because I would talk to my steward. As I said before, we'd go over what the rules and regulations were, and we talked about them ahead of time. We talked about what the absentee deal was as far as discipline was concerned. I'd go into any of the problems. Also if the union had a legitimate request or complaint or squawk as far as somebody's working conditions were concerned or anything, and it was legitimate, I took care of it. They didn't have to make any paperwork. If it wasn't legitimate, then I'd see it all the way to the end. They knew that, and in most cases, they knew I was going to be fair. So that's where we went. That, I feel, helped me out a lot.

TS: Did it help, the fact that you came up through the ranks instead of coming out of, you know, a business program at the University of Georgia?

HM: Yes, because when they start talking about any particular type work, I pretty well knew about it, because I had been there and been through it. So that helps a tremendous amount.

TS: I know around 1960 or thereabouts, the NAACP was threatening suits against Lockheed. Did you ever have any relationship with them or dealings or was that at a higher level in the company?

HM: No, I wasn't involved in that.

TS: Okay. You mentioned some stories about Dan Haughton. What about Jimmie Carmichael?

HM: Oh, yes. I knew him well. He was such a nice fellow. I knew him at Bell, and I knew him at Lockheed.

TS: How would you compare him and Haughton? Jimmie Carmichael obviously didn't know anything about airplanes before Bell came here, but apparently he was a pretty successful general manager.

HM: He was, because where he didn't know about a particular

thing he was smart enough to get somebody that was. And he gave them credit for them when they did.

TS: Was he constantly going through the plant they way Haughton did?

HM: Yes, he was constantly on the move, all right. He couldn't cover as much area through the plant as Haughton could.

TS: Because of his disability?

HM: Yes.

TS: Was he usually on crutches when you saw him or in a wheelchair?

HM: Well, as I recall, he got one of these little electric . . .

TS: The carts.

HM: Yes.

TS: I've got a picture of him taking Walter George around the plant. Is that what you're talking about?

HM: Yeah.

TS: So he could drive anywhere he wanted to go.

HM: Yes. But he was a real nice fellow. I had the privilege of going to his house many times on Cherokee Street. He'd have us up to his house.

TS: The managers?

HM: Yes, different bunches.

TS: Just invite for social gatherings?

HM: Yes.

TS: What about Rip Blair?

HM: Well, I knew him because he worked in, I guess, the legal part of it. I got to knowing him, because they had a deal come up at Bell about . . .

TS: That's what I was trying to think of earlier. Would you explain that a little bit?

HM: I'm not real familiar with the whole thing; however, I was supposed to have been a star witness. [chuckle]

TS: So this is in Superior Court in Cobb County that there's a trial that takes place?

HM: This was down in Atlanta.

TS: In Atlanta.

HM: Yes. They took me from the plant and had me tell my side of it. Rip Blair was doing the questioning and everything.

TS: Because he was the counsel for Bell.

HM: Yes. I don't know all the ramifications of that.

TS: But you were testifying to what?

HM: I was testifying that I thought it was going good like it was.

TS: So you didn't need a union?

HM: Yes.

TS: Okay. That's your main relationship with Blair was in this case?

HM: Yes. However, I had many conversations with him over in his office. He called me if any little thing was going on or something or he'd just call me over and talk to me and ask my opinion on it. And so would Jimmie.

TS: They're both over in the B-2 building, I guess.

HM: Yes.

TS: Were they on the second floor of that B-2 building?

HM: I'm not sure.

TS: The reason I was wondering, I was just wondering how Carmichael got to the second floor?

HM: They had an elevator.

TS: There was an elevator? From the beginning?

HM: Yes. I'm not sure. But I've been in his office many a time. [chuckle]

TS: Okay.

HM: Well, going on into the C-130 and a little bit more about what I did, I got Department 2320. That was all sub-assemblies, and that was under direct orders of Dan Haughton that I go there. Vick Alexander was the superintendent of the B-47 mod. We had some big mod programs over on the final line. They were having trouble over there, and Dan Haughton asked Vick Alexander what he could do to help him. He said, "Well, give me Harold Mintz as my assistant." Monday morning I ended up over there as assistant superintendent.

TS: Now, what does mod program mean?

HM: Oh, that's when they brought the 'B-47's back, and we took the engines off. The engines were reworked.

TS: For modernization?

HM: Yes, to bring them more to date.

TS: It's just called m-o-d, mod?

HM: Yes, it was a modification. The biggest one was Peach State Mod. We put new stuff in the airplane, instruments and all that kind of thing, to update it. I stayed over there awhile. Then Lee Poore said that he thought I ought to go to fabrication. I'd never worked in fabrication in my life. So I went over in fabrication where they make the parts and the drop hammers and presses and processing and all that stuff. So I went over there and went through Department 1807. That was a big department. It had about a thousand people in it. I gained some real knowledge there. Then they thought I ought to go down and take the machine shop for awhile. There was a production machine shop. So I got to go down and run the production machine shop. Then they got in trouble in the paint shop again, so they moved me back in the paint shop and doing the painting of all the airplanes.

TS: Sounds like whenever they got a problem they sent you in to that department.

HM: I was in many departments. I was in the paint shop three different times; I retired from there.

TS: And that's B-3?

HM: B-3 and B-78 building, the flight line. About that time the C-141 was getting ready to start. So they gave me

the nose section on the C-141. I'd been lucky; I had the nose section on the B-29 and the B-47 and coming on back to the 141. So we started the 141, and that was a fine program. That was one of the best programs we ever did. It was a good airplane. We built it well. I got the nose section going and had a learning curve of 64 percent.

TS: Now what does that mean?

HM: That's how fast you're coming down from ship to ship.

TS: Sixty-four percent.

HM: Yes, reduction. And that's good; 64 percent's real good. So I got that going real good, and then the aft section on the 141 was giving a lot of problems. They were having a lot of personnel problems and everything else. So they pulled me out of the nose section and put that man down there in my job. I had all my engineering problems correct and everything; so they put me down in the aft section.

TS: Is this still black workers?

HM: Oh, I had both, see, we had both. What I had done on the 141, to take care of problems--and I'd recommend it on any airplane--every Tuesday morning at 9:30 I had a representative from engineering and had full authority to come up and walk through any change. I had a supervisor out of inspection, I had a supervisor out of planning, I had a supervisor out of tooling. With those I could pretty well do anything. If I had any problem with my section, I took that committee out and showed it to them. I said, "Now, fine, who wants to take this problem?" And one of them would say "I'll take it." And I said, "Okay." I'd jot it down, and I'd make minutes of the meeting. "When you going to have it done?" ECD date, so-and-so. Then I put out the minutes of that meeting and sent it to all the different department heads of the people that were there. Then when they did a good job, on the next report I'd brag on that fellow making his ECD date. If he didn't make it, I'd say ECD missed . . .

TS: And want an explanation.

HM: Yes. And the next ECD date is so-and-so. They wouldn't hardly miss two. But I got all my problems fixed.

TS: I think I'd like committee meetings like that.

HM: Well, it did away with all the red tape, see, because if

you handle it through the normal procedure it'd take a month for it to go through all the paperwork and all the different rules. Where I had them, and they had authority to get the approval then and walk it through and put it on the print and put out the paperwork the next day. That's how I got stuff done.

TS: How long did the C-141 program last?

HM: I'm guessing on my dates now. I could probably go through some of my paperwork and tell you. I guess it started about `61 or '62 on the 141.

TS: Kennedy administration?

HM: Yes.

TS: But we don't make 141's any more, do we?

HM: No. The Air Force scrapped the tools. One of the worst mistakes ever made. They would have built many, many more of them. It was such a good airplane. It performed so well; the building was so good on it, the quality was so good on it, that it would have been many more built except when we got through, the tooling was scrapped. I was assigned to the C-5 in 1966. I went over in the B-95 building, and I worked with planning and engineering and tool design for a year. I signed off on all the tools. Then after that was over I came back, and I started the nose section. See, that's generally the hardest section on an airplane. I started the nose section on the C-5. From that they put me on swing shift as division manager. So I had all C-5's. I worked there awhile, and then they were having problems on the mating of the C-5 and the stuffing, primary electrical and stuff, putting it in.

TS: The mating of it?

HM: Yes, the mating of the sections together and putting all the electrical stuff in it. So they brought me back from swing shift on day shift, and I was division manager on that.

TS: Like the parts don't fit together?

HM: Uh, no, no, that's just where you bolt them together. The nose section to the mid section, you know, to the aft section. They'd put the sections making a long airplane out of the sections. That's when you start connecting all the electrical and plumbing and everything for section to section.

TS: I've got a picture of women working on these electrical harnesses. I've seen them over at Lockheed where the wires go on for miles and miles it looks like. So you built those, and then after you put the sections together you've got to put that harness in, right?

HM: Yes. Now, a lot of the harnesses would be put into the individual sections. Then when you put the sections together you have to connect. That goes for your tubing and stuff too.

TS: Right. So you worked on the C-5 in the '60s. I guess those are really the gravy days for Lockheed when you're up to over thirty-thousand workers in Marietta. Then it starts going down pretty rapidly, doesn't it, the employment?

HM: It did. After I got that body made and the stuffing going good, the mid section was holding up the airplane. They couldn't get them built. So they didn't really need me as division manager over there any more. They moved me back to that mid section to get it going. [chuckle]

TS: Which should be easier than the nose section.

HM: Yes. So I had a lot of organizing to do and a lot of that to do but . . .

TS: But this is really an indication of mismanagement if the mid section's not on schedule?

HM: Yes.

TS: So again you go in to straighten it up.

HM: Go into another trouble section. Any time I'd get my section running real good where I could enjoy working in it, there'd be another section that'd be in trouble, and they'd move me to it. But you know, I liked it. It was a challenge.

TS: Did Lockheed have training programs all the time for managers or did you just pick up how to be a manager on your own?

HM: Oh, we had programs all the time. Yes. And you work at it and you learn.

TS: I guess I should ask were the classes worth anything that you had to go to? [chuckle] No comment?

HM: Oh, I'll show you one here. One was Emory. I spent time

down there.

TS: At Emory University?

HM: Yes. And the best session of learning to me that I ever learned was at Bell, and it was a Dale Carnegie course they gave us on our own time. I loved that. I learned more from that.

. . .

TS: About getting along with people?

HM: Getting along with people and just going on and talking and telling what you're going to say.

TS: Oh, public speaking.

HM: Yes, public speaking. I won first place in our section. We went down to Atlanta to a big banquet, and I came in second. [chuckle]

TS: That's good.

HM: But I loved that, I loved that. That does so much. I always sort of tried to teach this to my supervision, because I said, "It doesn't matter how much you know. If you're trying to tell people what it is, and you can't tell them what it is, you're not helping them."

TS: Right. Was there a big difference in management style at Lockheed compared to Bell? Any difference in philosophy or whatever of two different companies or were they very similar? Was it a big deal that it's no longer Bell and it's Lockheed now?

HM: No. See, most of the people that came in with Lockheed really didn't know a lot about Bell. So it really didn't have much affect. The time made the difference, the time that it happened, see. It brought pressure during Bell. It was a different kind of pressure for Lockheed. Now, I don't mean there wasn't pressure at Lockheed. There was plenty of it. But not to do or die like at Bell.

TS: Do you have any idea why they chose Lockheed instead of Bell to reopen the plant?

HM: In those type airplanes they were going into, Lockheed had had more experience.

TS: I discovered when I was up in Buffalo that it kind of broke Larry Bell's heart when he didn't get the plant back.

HM: Yes. They had been in more and different type of aircraft, and they were well suited for it. So the end came to the C-5. By the way, the C-5 in my opinion, had more new things on it than any airplane I worked on in forty years.

TS: Really? That probably explains some of those cost overruns then, doesn't it?

HM: Yes, it could. Even the riveting in it was so different. We used tapered fasteners on the C-5, that had never been used.

TS: Used what?

HM: You drill a hole with a tapered drill. Small. Then get larger as the drill went in. Then you bought rivets that were tapered rivets to fit that hole.

TS: Which should hold better, shouldn't it?

HM: It stood, I don't remember the percentage, but 50 or 60 percent more sheer value.

TS: Yes.

HM: Of course, nobody had ever used them. So you got into precision type work more on the C-5.

TS: Technology is advancing.

HM: Yes. The C-5 was a wonderful airplane. It did things and is doing things today no other airplane's ever done. And not doing today.

TS: Well, you know, I guess it's one of the great stories that we're still making C-130's after almost fifty years now, although I guess the interior is vastly different from an old C-130.

HM: About the only thing that's the same on the C-130 is looking at it from the outside.

TS: It looks the same outside but nothing else?

HM: Yes, it's sort of the same outside contour but it's an altogether different airplane. It has kept up with the times. Engineering-wise in every aspect it's made progress as time has gone on.

TS: So it's as much of a misnomer to speak of a C-130 today as being the same as a C-130 in the '50s as it is to talk

about a Ford today comparing it to a Ford of 1950.

HM: That's a good illustration because that's certainly true. Because it's come along and changed as things have changed.

TS: Well, you stayed until '86.

HM: I left. The C-5 pretty well closed down in '72.

TS: End of Vietnam.

HM: Yes. So I went back to the paint shop, and I had all the painting of the airplanes and all the trim of airplanes.

TS: So you're really not too affected by all those financial problems that Lockheed goes through in the '70s?

HM: No.

TS: You said you were in the paint shop several times. What did you do during the '70s? Do you stay at the paint shop the whole decade?

HM: I went there in '72 and stayed there until '86. Now, when they started the C-5 again they came and talked to me and said that they'd give me a division job if I'd go back on the C-5 when they started up and built more C-5's. I said, "I believe I'll pass it up."

TS: Well, you must have been in your sixties by the time you retired, weren't you?

HM: Sixty-seven.

TS: That's what I was thinking. So that's beyond the typical retirement age, wasn't it?

HM: Most of them retired before then. But in the paint shop I had the only department in Lockheed that made their own schedule and budget. With my methods engineer made my schedule. I printed my schedule. The only department in Lockheed that made my budget; said it'll take so many hours to do this and so many hours to do this. And see, we always had different airplanes coming in; mod airplanes or one coming in wanting something done. I made my schedule, and scheduling took it and reprinted what I put on it. Budget took my budget hours and made that a running budget, and that's what I operated to. But I made realistic schedules, and I make realistic budgets. They were non-fat. You had to work to make them, and then I strived to make them. So they changed

the way budgets and schedules were set up. "You know more about the budget and schedule than we do, so you make it." No other department ever had that.

TS: So they left you alone.

HM: Yes, yes. It was wonderful. Any time the manufacturing manager wanted to know if I could run an extra airplane in and what it would do to my schedule, I'd say, "Well, give me a couple of hours, and I'll see." So I'd get my methods man. We'd sit down and figure this and maybe figure a little bit of overtime, so we wouldn't go very far behind on the production aircraft. I'd take that package over to them and say, "I can do that and get it out on this date. Then I can still get my production airplanes out on this date. I'd use so many hours here. If I don't use any hours here and get this mod out on this date and the production, I could do it on this date with those times." And he said, "Well, we better keep that schedule up going now. I'll just give you the overtime and you go ahead and print that schedule." It was so good to work for them.

TS: Well, I wanted to ask you about that. You're talking very positively about Dan Haughton and Jimmie Carmichael and being invited to their house and so on. Did Lockheed change over time? Did it become more impersonal as time goes on or did it stay the same type of family atmosphere, do you think?

HM: I would say some of the people that was there caused that. There'll never be another Dan Haughton. There'll never be another Jimmie Carmichael. Now, they had a lot to do with what happened then.

TS: So they're the best as far as you're concerned.

HM: Yes.

TS: Okay. I'll just ask you one last question. When I've been out several times to the Lockheed Management Retirement group, I kind of get the feeling that their loyalty is really to Lockheed and not to Lockheed-Martin. Do you think that's true?

HM: That's true, because all those old heads came up under Lockheed. And another thing they've done too. The active Lockheed management club there at Lockheed--not the retirees--voted to let hourly people come into their club.

TS: That's not management any more.

HM: That isn't management any more. We voted not to let them come in. If it's going to be Management Club it ought to be Management Club. If it's going to be Lockheed Club, I have no disagreement with meeting with any of the hourly people. That's not it. It's either a management club or it isn't.

TS: Right. Well, this has been fascinating to me. You've really told me a lot, filled in a lot of details I didn't know. So I really appreciate this interview.

HM: Well, you're welcome.

INDEX