

An Interview with

JOHN E. PARKER

OH 99

Conducted by Arthur L. Norberg

on

13 December 1985

6 May 1986

Washington, DC

Charles Babbage Institute
The Center for the History of Information Processing
University of Minnesota, Minneapolis

Copyright, Charles Babbage Institute

John E. Parker Interview
December 13, 1985
May 6, 1986

Abstract

Parker discusses his career: his years in the Navy, acquisition of Porterfield Aviation Company, start-up of Northwestern Aeronautical Corporation, and especially the formation of Engineering Research Associates (ERA). Parker explains how his business brought him to St. Paul and into contact with the Navy, and how the Navy approached him to direct a new research company, ERA, to continue war-time work done for the Navy. Parker recalls his meetings with key ERA personnel, including William Norris, Ralph Meader, and Howard Engstrom. ERA's entry into computing is discussed, including contracts in 1948 with the Navy, Air Force, and National Bureau of Standards and negotiations in 1949 with IBM over a magnetic drum design. Parker recalls ERA's sale to Remington Rand in 1950 and mentions the 1950 publication of *High-Speed Computing Devices*. Parker's period as Vice President for Sales at Remington Rand and Sperry is the focus of the last third of the interview. From 1952 to 1956 he and his staff sought to expand the number of computers sold and to integrate sales of all types of automatic machines.

In the second part of the interview Parker continues his discussion of ERA's relationships with other computer manufacturers including ERA's magnetic drum design agreement with IBM in 1950. Parker also discusses the acquisition and assimilation of ERA by Remington Rand, ERA's relationship with the Eckert-Mauchly Division of Remington Rand, and his own disaffection with Sperry Corporation's deemphasis on commercial computer sales after they acquired Remington Rand in 1955. Much of the interview concerns Parker's activities as head of the Electronic Computer Sales Department of Remington Rand.

JOHN E. PARKER INTERVIEW

DATE: December 13, 1985

INTERVIEWER: Arthur L. Norberg

LOCATION: Washington, D. C.

NORBERG: Today is December 13, 1985. I'm in the home of Mr. John E. Parker, one of the founder's of Engineering Research Associates, Inc. that was based in St. Paul, Minnesota starting in 1946.

PARKER: About 8 or 10 people were having dinner up at my apartment and he [Richard Lilly] called me up and said, "I'm downstairs. I'm coming up." And I said, "Well, that's fine, Dick, but we're right in the middle of dinner." His wife was with him, and I said, "I'll come down and see you." And I did, I went down. Standing outside the elevator he said, "I want you to buy a third interest in a company." He said, "I'm going to take a third and my friend," a contractor there in St. Paul, "is going to take a third. My boy's coming home from the war, and his boy's coming home from the war, and he's got a classmate from Dartmouth that's coming home with him, and we want to set them up in this company, Toro." And I said, "Well, Dick, how much is it? How much do you want?," and he told me whatever it was and I said, "Okay, whatever you want to do I'll join you." Thanked him very much. Standing outside the elevator, and I got back in and went to finish my dinner. You'd have to know Dick Lilly to understand this.

NORBERG: Yes, yes.

PARKER: Dick Lilly was the number one citizen of St. Paul. He was chairman of the major bank. He was in everything. He had a very unusual career. There wasn't anything in St. Paul that he didn't have a hand in in someway or other.

NORBERG: I'll come back to him in a minute. I'd like to ask you a strange question. When I was looking over the history of Northwestern Aeronautical, the name Porterfield, from Porterfield Aviation, rings a bell from a John O'Hara novel. In the novel *From the Terrace*, here are two young men who start an aviation company in Missouri called the Porter Aviation Company. And I'm wondering if there's any connection?

PARKER: I don't know. You ring a bell with me on this, too. Porterfield Aviation was in Kansas City. One of my partners, Hugh Auchincloss, this is back in the earlier days when I was a partner at Auchincloss, Parker, and Redpath, in which we did financing of various aviation companies, had gone off on his own and somebody persuaded him to make an investment in this Porterfield Aircraft Company in Kansas City. And after the company got in trouble, he came to me and asked me if I'd go down and see what I could do about it, which I did. And this was just at the beginning of the war. I foreclosed, that is the lawyers foreclosed on the loan, took the company over. And at that time, Porterfield was making a proposal to, it was then the Army Air Corps, not the present Air Force, to make a trainer aircraft. I was a director, too, at that time, of Northwest Airlines. And Northwest didn't know what they were going to do during the war, because all but five of their aircraft were taken over at the very beginning, and they just didn't know what they were going to do. I, having foreclosed on this Porterfield Aircraft, and to do something with it I brought it up to St. Paul.

About that same time, I formed a company called Northwestern Aeronautical Corporation. This was to help solve a problem that Northwestern Airlines had. But in any event, pursuing this invitation to bid on this trainer airplane, I found out at Wright Field it was going to go somewhere else, but they were going to put out a request for bids for a glider. So I took that back to St. Paul. I sat down with the Northwest engineers and asked could we do this, and they said sure they could and so forth. And so we made a bid for it. And I think really trying to get rid of me because of my trying to persuade them to use the Porterfield aircraft as a trainer for the Army. They actually gave me a contract to build 13 airplanes on an experimental contract. Well, the bottom line of that, by the end of the war we were building... I've forgotten what we were building now...maybe 15 planes a day instead of the 13 experimental ones to be done over the period of a year, we were doing about a dozen or 15 a day. That's the history of Porterfield.

About 3 or 4 years ago, I had somebody, in talking about Missouri, came I believe from St. Louis, and asked me if they could buy the certificate to build this airplane. It was a man and his son and they had some reasons they wanted to get into building an aircraft and I signed over to them this certificate and I think I sold it to them for \$100, so they legally had the rights to build the airplane. And that's the history of Porterfield Aircraft.

NORBERG: Interesting. Let me pick up just a couple of minor things. I'm not familiar with your birth place or your birth date.

PARKER: Well, it's one that's easy to remember because I was born in 1900, October 26, which is easy to keep track of the years of what I now am.

NORBERG: And birthplace?

PARKER: Danvers, Massachusetts.

NORBERG: Oh, I know Danvers well, I was born in Providence.

PARKER: For heaven's sakes. Well, well, well.

NORBERG: What did your family do in Danvers?

PARKER: Well, my father... When I was... I really don't know the answer to this at the time. My father had a farm in Maine and I believe the reason I was born in Danvers was to come back to a more settled part of the world, just at that time. I don't know much more about it. We went back to live in Maine. Well, my earliest recollections are of Maine. I know nothing about having lived in Danvers at that time. My mother died when I was 2 years old, before I was 2, so I have no real background of that. Primarily, my family was farming people. My great grandfather came from Bangor, Maine, and there is a statue over in Jefferson, Maine, saying he was, if not the first, one of the first settlers there. My grandfather was killed in the Civil War, he was in the First Maine Regiment. The body was never recovered. But there is a family plot in Jefferson, Maine, with a stone to him and... So, there's the background of the Parker family. We really came from Maine to begin with.

NORBERG: Were you educated then in Maine? In your elementary years?

PARKER: No. No, well, partially. I first went to school in Rockland, Maine. My father later remarried, but before his remarrying, I spent a couple of years with his sister, my aunt, and that's why I first went to school in Rockland, Maine. Then, we came back to Danvers and I went to grade school in Danvers and then we moved to Boston and I went to English High School in Boston. I had three years at English High when I got an appointment at the Naval Academy. I didn't quite finish three years. I had a private tutor and I was able to pass the exams at the Naval Academy, which I then graduated from in 1922.

NORBERG: What gave rise to the choice to go to the Naval Academy?

PARKER: Well, I can't answer the question, other than I just had... I guess I'd had a... the Navy had an attraction to me and the only military background in my family was my grandfather having been killed in the Civil War and so forth. I really can't... I really can't tell you.

NORBERG: Do you remember thinking about other possibilities? Harvard, Brown...

PARKER: Well, my original reason for going to English High was the expectations that I'd got to MIT. I had a couple of cousins that went to MIT. But I went to the Naval Academy.

NORBERG: Now, when you came out of the Naval Academy in 1922, did you serve as a Lieutenant?

PARKER: I was an Ensign to start with and then three years later my highest commission that time which to me was one of the highest in the United States Navy, I became a Lieutenant Junior Grade and that year I resigned from the Navy and came into business. The reason for that was not that I'd been wanting to do it, but I was married and within a year after my marriage, my father-in-law discovered he had a terminal disease and asked me would I get out of the Navy, that there was nobody else left in the family to carry on his business. He owned a New York Stock Exchange brokerage firm here in Washington. I did get out. And that's the beginning of my business career.

NORBERG: What year was that?

PARKER: 1926.

NORBERG: What firm was it?

PARKER: His firm. John L. Edwards and Company. And as I say, I didn't get out early enough before his death. I first started to work in New York with Hornblower and Weeks in New York, which was one of the correspondents for John L. Edwards and Company here in Washington. And as I say, he died within a few months after that and I came back to Washington. The executor of his estate was the then president of the Riggs National Bank, of which he had been a director - these were all close associations - and they sold the business to a New York firm, G.M.P. Murphy and Co. Although slavery was illegal at the time, part of the deal was they had to take me for a year. They calculated what it cost us to have an apartment - we then had a son - and just what it cost us to live for a year. Anyway, it worked out all right, because within three years, I became a partner in the firm, and from then on I was in this business until the war came on.

NORBERG: This is a partner in Hornblower and Weeks?

PARKER: No, John L. Edwards and Company. No, no. I was a runner at Hornblower and Weeks. I was learning the business; I went into one department after another. No, I came back to Washington, John L. Edwards and Company. John L. Edwards and Company, in the meantime, well, after I came back, was sold to G.M.P. Murphy and Company. Grayson M.P. Murphy was a classmate of that fellow up there [pointing to a picture on the wall of General MacArthur] and a great friend. And when he used to come to Washington, and he was then Chief of Staff...

NORBERG: This is Douglas MacArthur.

PARKER: Douglas MacArthur. ...was then Chief of Staff, and my wife and I would leave the apartment up for the two of them so they would have a place to have their meetings without interruptions.

NORBERG: Very interesting.

PARKER: Very interesting. He was a great man, Grayson Murphy. He was the head of this firm. He was a director at that time of Goodyear Tire and Rubber, and Bethlehem Steel, of Anaconda Copper, of Guarantee Trust Company, one of the leading men of his time. As a matter of fact also, in World War I, he had succeeded Douglas MacArthur as Commander of the great New York Rainbow regiment.

NORBERG: All I can think of is one from the Civil War the Iron Brigade, but I don't think that quite fits. It could be the same one, but I don't know. I was looking for something else, which I will come back to. All right. You stayed, then, with the firm up until World War II. Now you became involved with Porterfield around 1940 or '41, as I recall.

PARKER: Yes. This was not with G.M.P. Murphy and Company. In 1938, Colonel Murphy died, and after his death, the firm was liquidated and most of the New York partners went with Hornblower and Weeks. I took the Washington office, the Baltimore office, and the Philadelphia office, and merged those offices into Auchincloss, Parker and Redpath, and remained as a partner throughout the war. At the end of the war, I became a limited partner, and about 1952 I retired completely from the firm.

NORBERG: Could you explain to me then the difference between a partner and a limited partner? I'm not familiar with the terms.

PARKER: Well, a general partner has an interest in the firm, normally a percentage interest, but he is liable for all of the assets and obligations of the firm. A limited partner has a specific amount of money that he has in the firm, and he has a percentage that he gets paid, a fixed amount, such as interest on his money, and is only liable for that particular part of the capital that he's invested in the firm. Whereas, the general partner is liable for all of the assets,

each partner is individually liable for everything.

NORBERG: Was Porterfield the only company you were associated with separately at the same time you were a general partner in the firm?

PARKER: Oh no. Oh no, no. This was just a chore.

NORBERG: I see.

PARKER: No. Going back a little bit into earlier days, G. M. P. Murphy and Company were pioneers in aviation, both in transportation and in manufacturing. In transportation, G.M.P. Murphy and Co., together with Lehman Brothers, originated Pan American Airways, financed it I'm talking about now.

NORBERG: I see. Yes.

PARKER: And with another firm, they put together United Airlines, which was a combination of National Air Transport, Pacific Air Transport, and Boeing Air Transport. They were in this business. By the beginning of World War II, they participated, G. M. P. Murphy and Company, in...

[INTERRUPTION]

NORBERG: You were mentioning Murphy had 70% in Trust...

PARKER: Well, it had an interest in the underwritings, that is the financing, of 70% of all the airlines and all the aviation manufacturing companies. For instance, they were principle investment bankers with other New York underwriters and so forth around the country. And so what happened when the firm, the G.M.P. Murphy Company, liquidated and the New York partners went to Hornblower and Weeks and I was the sole partner in Washington, and

I took our Washington office and our Baltimore office and the Philadelphia office and a couple of people out of the New York office into Auchincloss, Parker and Redpath. And then I continued to pursue the interests that I had. For instance, I brought with me Northwest Airlines, and I became a director of Northwest Airlines. This again is why I had Porterfield and why I came up... This is how I got up into St. Paul and Minneapolis to start with. It was through Northwest Airlines.

NORBERG: Now I'm beginning to fit some of these pieces together, I can see some connections.

PARKER: I did financing for Cessna, for instance, and for Beech. I was director and did the financing for a company I bet you never heard of -- Canadian Colonial Airways.

NORBERG: No, I can't say that I have.

PARKER: Well, a great big airline that runs from New York to Montreal with a stop over in Burlington and one other place and it was operated under jurisdiction of both United States and Canada. The company had a contract to carry the mail from the post office department, the U.S. Post Office Department, from New York to Montreal, had a contract with the Canadian Air Post Office to bring the mail from Montreal to New York. It's now a part of Eastern Airlines. It became a part of Eastern Airlines. [Telephone call.]

NORBERG: Just before the phone rang, you were describing your part of the company, that is the new company now, Auchincloss, Parker and Redpath and their activities.

PARKER: Well, I just picked up on the things I was doing then with G.M.P. Murphy and Company in the aviation business...

NORBERG: Bringing Northwest Airlines with you as part of your new firm, etc. So we've got this transition then to Northwestern Aeronautical, you mentioned how that came about earlier...

PARKER: Why I formed this company was that early days in St. Paul, they had a bond issue to build the St. Paul airport. And in it, I believe - and this memory may not be correct - is that they had 25 years or 40 years in which Northwest Airlines had to maintain its principal maintenance operation on the St. Paul airport. This was the basis on which they raised the money. When the 4-engine equipment came about and then came the jets, they just had to move. One of the things that I did was to form this company and took over this contract they had with St. Paul. It allowed them to move their headquarters to the Minneapolis airport.

NORBERG: Now, that would be in '41. Now what happens when...

PARKER: No, no. This... Now, I may have the dates wrong...

NORBERG: Well, let me ask the question a different way, then. Was it before the war that you took over their facilities or after the war.

PARKER: It was during.

NORBERG: During the war. All right, so it was still while Northwestern Aeronautical was in business.

PARKER: Oh yes. Oh yes. And Northwestern Aeronautical stayed in business until after the war. The first contract that ERA had was taken by Northwestern Aeronautical.

NORBERG: Yes. Therefore, as long as ERA or Remington Rand or Sperry occupied those facilities, then Northwest Airlines was off the hook with whatever contract. You had purchased the contract that maintained them at the airport.

PARKER: I wouldn't say purchased it, I took it over. Remington Rand or Sperry Rand didn't have anything to do

with this part of it. They didn't take over Northwestern Aeronautical.

NORBERG: No, I wasn't thinking of that, but when you said the bond issue had been raised under the condition that Northwest Airlines takes it...

PARKER: Well, the original bond issue to build the St. Paul airport had been raised by the city of St. Paul, way back, as I say. At the time they did it, they made this contract for that number of years, whether it be 25 or whatever it was, that Northwest Airlines had to maintain their maintenance and overhaul on the St. Paul airport.

NORBERG: Now they moved and you assumed that...

PARKER: Well, in order to allow them to move... this is when I, yes.

NORBERG: But what I'm trying to ascertain here is you maintained that position then so that they didn't have to become liable again if you got out.

PARKER: Oh that's right. That's right. This cleared it.

NORBERG: Now, as the war was coming to the end and you're building 15 gliders a day...

PARKER: Whatever it was.

NORBERG: Whatever it was. What were you thinking about in terms of post-war activity?

PARKER: Lots of things. I had been investigating everywhere. I had a fairly large organization by this time. I would say probably by the end of the latter years of the war, we were probably the number 2 or 3 largest contractor to the war effort. Northern Pump was larger than we were, but we were large. We had subcontractors, you know, in that

area, so in closing down I was, well, I was just following every possible lead that I could as to what could we do there. And...

NORBERG: Can you give me some examples of what you did follow down?

PARKER: Well, I at the time, I had employed a management firm and they came and made a study for me...

NORBERG: Would that be Booz, Allen?

PARKER: Booz, Allen, yes. They in turn made overtures to other companies if this facility could fit into something that they were doing. And I don't know, we had maybe a half a dozen of them, but it never got down to any real negotiations until... In the meantime, I declared this plant surplus. You see, this was a... This plant that I had on Minnehaha was... Well, you probably know the place itself. It was very large plant and I said I declared it surplus and began moving out of it when I got this call to come to Washington and they asked me if I would take over this one. [ERA] So then I came back and retraced my steps and withdrew the application for disposal of it. Had a hell of a fight about that, by the way.

NORBERG: I'll come back to that in a minute. Did you spend the war in St. Paul?

PARKER: Yes.

NORBERG: You did. You literally moved to St. Paul.

PARKER: Well, I always kept my home here in Washington, but yes, my wife and I we lived at the Commodore Hotel. We were there on and off for about 8 years, as a matter of fact.

NORBERG: When did you first become aware...

PARKER: But ERA, we also had an office here in Washington.

NORBERG: Yes, I was just trying to make sure that you were living in St. Paul during that period because I knew that ERA was here. When did you first become aware of plans for a new company that subsequently became ERA?

PARKER: Right at that period when I was trying to find something to go into after the glider business was terminated.

NORBERG: All right. I would assume that the glider business was terminated sometime in either May or August. That you were just sent a telegram and there was a cancellation of all contracts.

PARKER: About that I don't remember.

NORBERG: I'm just guessing on the basis of other military actions.

PARKER: It was. I can remember the Colonel at the Wright Field calling me up and, you know, sort of apologetically telling me about the thing. I said, "This is the greatest story I've ever heard in my life, you know, the war's over!" That's what I was here for.

NORBERG: So you would begin... Do you think it was as early as August '45 that you learned about ERA? Let me ask it a different way, Mr. Parker - I don't mean to sound like an attorney here - but who did you hear it from?

PARKER: Oh well, maybe this will help you if I can reminisce a little bit about this. The contracting source for the glider program was in Dayton, but the actual administration of it was done through the Chicago office of the government. And that was headed by a Colonel named Nelson Talbot. Did you know him?

NORBERG: No. I know the name but that's all.

PARKER: His brother later, Harold Talbot, later became Secretary of the Air Force. Came from Dayton. And apparently in looking around, whoever was doing this, either the Navy itself or this group of Howard Engstrom, Norris, and Meader. Anyway, through Talbot, who had met Meader, he suggested that they talk to me. Well, it's hazy on my part now the steps that actually happened, but...

TAPE 1/SIDE 2

PARKER: Engstrom and Norris and Meader and... They told me that this was a group that had been doing some very classified work during the war and so forth and under certain circumstances that they would like to continue to carry on this work and be together. And I don't know whether this is the cart or the horse now that I'm talking about, which came first, which led up to my going to Admiral Nimitz, the Chief of Naval Operations. And all Admiral Nimitz said to me, as he tapped me on the chest, was: "I've looked into your background and there's a job that I would like to have you do." And he said, "It may be more important in peace time than it is in war time." And I said, "Aye, Aye, sir." I had no idea what I was going to do. Well, as it turned out, what I've just told you now, this group then said that if they could get someone who would give them half interest in the company, finance the company, and certify that they wouldn't direct any of their scientific research activities, that they would agree to bind themselves together under contract for three years. This was the beginning. Then I guess I had another meeting with the under-secretary or assistant, I don't know what he's under-secretary or assistant secretary of the Navy at the time, John Sullivan, who's aide was a classmate of mine in 1922 maybe. And so I don't know, one thing led to another and I went from there to the Judge Advocate's office etc., etc. making sure what I was getting into. And I agreed to go ahead and do it.

I had the facility in St. Paul that I had just declared surplus that I could reclaim, which I did. I had enough money from what I had liquidated in the meantime. I solely owned Northwestern Aeronautical. I used to have a partner, but I bought them out during the war. And so I was the sole owner. And through my friend, Dick Lilly, who got me to

buy the Toro stock, I was able to finance this new venture of going into ERA. And this comes back to my Toro story. When I came up to be able to qualify financially to be able to take on these government contracts, I had from him, from the First National Bank of St. Paul, the commitment that they would loan me the money. When I did that, Dick said to me, he said, "Well, we can't carry both. We can't carry the Toro and the ERA." So I sold my interest in Toro back to him. I did own one third interest and I was on the board of Toro and so forth. Well, my contribution to Toro was that - and this is the reason that Dick Lilly wanted me - he wanted me for two reasons: 1) he wanted me to put the money in, and 2) because I had the organization that could go in and revamp this very old plant. The old Toro plant had one long rod that ran from one end of the place to the other, and every machine was hooked up on this one rod. Well, we went in and modernized the plant and put modern equipment in and so forth. We were able to buy equipment that had been declared surplus, etc., etc. So that was my basis of being in Toro. When I formed ERA, I couldn't carry both, so I was out of Toro.

NORBERG: Why not? Why did he feel that that was...

PARKER: I didn't have the money.

NORBERG: I see.

PARKER: Didn't have the money. I'd spent, I've forgotten what the exact amounts were, I bet it was probably \$300,000, something like that, I had in Toro. I had to take on another company. Taking on something like 100 people, engineers, and then to carry on behind them and so forth. This took one whale of amount of money. And I don't know what...a million dollars which I didn't have.

NORBERG: Did you know Admiral Nimitz before this meeting?

PARKER: No, I didn't. Well, I knew him, but all...

NORBERG: Knew who he was, yes, but I mean did you know him personally?

PARKER: No, not really personally, no, no, but I knew him of course, yes.

NORBERG: Because when you mentioned Talbot, he was in the Army and...

PARKER: He was in the Army, he was in the Air Force, Air Corps, the Army Air Corps.

NORBERG: Army Air Corps. Now why would he be sending you to Washington to see anybody like Nimitz?

PARKER: Because during the war the National Cash Register had the United States Navy Computing Machine Laboratory. And Meader, reserve captain in the Navy, was head of the U.S. Navy Computing Machine Laboratory housed in National Cash Register. Colonel Talbot lived in Dayton. He knew everybody that was in National Cash Register. He also knew everybody that was in IBM. His classmate and great friend was Tom Watson, Jr. IBM did everything in the world they could to get me to make them and offer; I'm talking about ERA.

NORBERG: But this is Meader who knew the IBM people? Or was it Talbot?

PARKER: No, no. This is Talbot. Nelson Talbot, Colonel Talbot. Meader apparently had talked to him because of his association with Cash Register. Talbot said, "Go talk to Parker," and I guess this is the essence of it.

NORBERG: Because Talbot would have known...

PARKER: Talbot talked to me and would I come down and take a look at it, which I did and so forth. I'm going back. When did this happen? This is '46 and this is now '85...We're getting near 40 years aren't we?

NORBERG: Yes, we are. 40 years that's right. Well, I'm going to try to follow a couple of more things, to see whether

I can stimulate a couple of other memories if they're there. They may not be. Does the name James Wakelin mean anything to you for that period, late '45.

PARKER: Oh, very much. Yes. Remember now, what we were getting into. We're taking over a group of people which now it's all right to talk about. It was a felony to disclose at the time, back there, that you were in this business of code-breaking. Now, we had to do everything we could to circumvent this and what we were doing with the Navy on the development of the computer business for doing this code work. They encouraged us to take on anything we could that would sort of balance out and be publicized that we were in some type of business. Now, Jim Wakelin at that time was head of one of the divisions in naval research. And I, through, again, some Navy people, associates, I got to the Chief of Bureau and said that I needed Jim Wakelin for this company. And he said that he was his right arm, we couldn't take him. And then I got the Chief of the Bureau of Ships who directed this contract, and he got him released to come with us.

NORBERG: Why did you want Wakelin?

PARKER: Well, we took on a contract with the Army and this was to determine the effect of explosions in various media. We knew a lot about water and air but we undertook to make a study in which we set off - I hate to use these numbers, because I may get them wrong in this years later - but in any event the amount of dynamite that we used in each one of the explosions was about the value 1/5 the value of the A-bomb. I think it was 320,000 pounds of TNT that we set off in the deserts out in Utah, sent off in sand, clay, limestone, sandstone, blew off a whole top of mountain down in Colorado. In doing this, we assimilated all the knowledge that we could from every source. We had the Bureau of Mines as a subcontractor to us. Now this was all done primarily by Jim Wakelin, putting this group together and so forth. And then we had these physicists that were with us... Dr. Sloan, and another name... it's all in the files if you want to dig it out.

NORBERG: Sloan. David Sloan?

PARKER: No. No. After a while they broke off and founded Atlantic Research.

NORBERG: Oh, yes.

PARKER: Jim Wakelin didn't go with them, but this was part of the group and this is where we had a laboratory here in Washington. They were never in St. Paul, they were always here. And I don't know, Jim just stayed on and on and he's still a good friend, I don't see him very often now, but he's now a Trustee of National Geographic.

NORBERG: National Geographic. So when you were thinking about whether or not you would start this company with the Navy and with these new people and so on, you didn't have any contact with Wakelin?

PARKER: No, not then, no. This was after I formed ERA. Jim came in after the original group.

NORBERG: All right. Let me try to make sure I understand what you just told me and that is, you, when called by Nelson Talbot, he mentioned that there was this group trying to form a new company, and that it was associated with the U.S. Navy. Could he tell you anything about what they were interested in? Did he tell you it was to make machinery for intelligence purposes?

PARKER: I don't remember now. I don't remember. But certainly he had to be knowledgeable about it, because when I formed the company, I got Colonel Talbot to become a director and I also gave him a part of the stock that I had.

NORBERG: Two more Talbots in the stock as I remember them being listed as well.

PARKER: Harold was... well, there may have been...

NORBERG: And there was a woman as well.

PARKER: By the name of Talbot?

NORBERG: I think so, or at least a woman from Dayton.

PARKER: There could be. It would certainly be in this file. But no, Harold Talbot never had anything to do with ERA.

NORBERG: All right. You went to see Nimitz and even Nimitz didn't tell you anything about what this company was going to do.

PARKER: No, other than it was something of great importance to the country.

NORBERG: Do you recall when the first filing for a new company was made?

PARKER: Well, I could find out by looking in the file.

NORBERG: I'll tell you why I asked that question. There's some confusion among the people that I've talked to in St. Paul about a filing that was done in December of 1945 and then a filing that was done in January of 1946. The same people are not associated with the filing. You're on the second one, but not on the first one. And I'm a little puzzled as to what was going on.

PARKER: Well, it may be, because these people had been talking to others before me. As I've told you, U.S. Rubber in particular. There was Admiral... He was reserve, Admiral... oh dear, what's his name? He was chairman of U.S. Rubber, and wanted very much to take this group into U.S. Rubber.

NORBERG: My information says that conferences began sometime in June of 1945.

PARKER: That might very well be.

NORBERG: There was a conference with Ralph Bayman, President of American Airlines and then there was some interaction with the President of Socony Vacuum, although I don't remember what his name was. And then there was some interaction also in June of '45 between Graham Green, a financier in New York, with Headly Crabtree in England, trying to get some international activity going as well. And then by November of '45 there was a whole list of companies and that's when Goodyear was involved.

PARKER: Well, now all that was prior to me.

NORBERG: The first time that I find Northwestern Aeronautical mentioned is in February of 1946. But by that time, the company was already formed, as I understand it.

PARKER: Well, I knew that they had talked to others and that... let's see what these dates are. [Shuffles through papers.] This is all later stuff. I had no reason to question who they talked to earlier.

NORBERG: Sure. I understand that. We can look through those later, if you'd like.

PARKER: Yes. This has to do with the Remington-Rand, Sperry-Rand files.

NORBERG: Okay. So you didn't have anything to do with Wakelin in late '45 and it was only with Norris and Engstrom primarily from this new group.

PARKER: That's right. That's right. I was trying to recall now when I first did talk to Jim Wakelin and...

NORBERG: Oh, that's all right. We can come back to that, too, if you can remember anything later on.

PARKER: I did tell you that I did have this problem about getting him, having to go back through my chain of command in order to get the influence to get them to release him to us.

NORBERG: When you talked to Engstrom and Norris at the time, do you recall any details of that meeting? Let's say the first meeting. Did they describe to you what this company was going to do?

PARKER: Well, they must have because by this time of course I knew what they were doing and... Well, I knew what they had been doing, let me put it this way. And then there was somebody else that was involved in this - he's now dead - was Captain... One of the handicaps that I'm getting in my youth here is I can't remember some names.

NORBERG: I'm also trying not to lead you.

PARKER: But he was the prime mover. He was the prime mover and head of this group of people. Regular Navy and stayed with the Regular Navy and so forth.

NORBERG: Stayed with the Navy? Oh, that's complicated. Pendergrass?

PARKER: No. As I remember it, I also talked to him about how important this... I guess he talked to me about how important this was to keep this group together and so forth. It's pretty hazy for me because back then there were a lot of exciting things going on. I was trying to make a decision whether I was going to go back into the banking business or whether I was going to try to get this company into something else. You know, use my organization, use the facilities out there. As a matter of fact, one of the things we seriously looked at was making a mattress factory out there. It was a bulky sort of business and we had the...

NORBERG: What did you stand to lose if you simply let the surplus declaration go through?

PARKER: Well, I felt a great obligation to the staff that I had, these people that were with me during the war. They

were very loyal and they were all people that knew they had to find someplace to go and they were all looking to me to see if I possibly couldn't find something to put this thing together. And when I came back with the ERA, that group of men - the machinists, the head of each one of these divisions and so forth, we had there just welcomed me with open arms, you see, that I had done it. Even some of those people are still working today out there if they were young enough. So I believe that probably was my primary... I wasn't mature enough at that time to think that; I didn't want to just try to make money. That may sound crazy to you, but I never...I never... that was my objective I always had something going that I was trying to build and...

NORBERG: But viability must have entered the consideration. Viability of the company must have entered the consideration. How did you make an assessment of whether these people could actually do what they said they could do? People like Norris and Meader and Engstrom.

PARKER: Because the people that were going to have to make that decision was going to have to be the Navy, who was going to give us the contract. There was no judgement on my part as to whether or not they could perform. It was the fact that they had been performing over a period of time, all these years during the war, and they made these accomplishments and the Navy wanted them to be kept together. I had no way of knowing. It was like taking on the Symphony Orchestra without knowing a note.

NORBERG: That's a good analogy. I like that. All right. So you didn't have to make the assessment of their capability...

PARKER: The thing I had to make an assessment about was whether we could get a contract that could pay for the establishment of this, getting these people moved out there. There was hundreds of thousands of dollars involved, you know, when there's a hundred people out there to start with.

NORBERG: Then how did you ascertain whether that was possible?

PARKER: Because I got the contract. Well, I had the agreement that if we put this thing together we would have a contract.

NORBERG: Now, it took five months, though, before the first contracts were let to NAC and to ERA. What went on during those first five months?

PARKER: Putting the thing together. Putting this thing together. It cost me a lot of money, you know, keeping it going.

NORBERG: Well, I guess what I'm trying to get you to say is there was an office opened here in Arlington, Virginia, right away, in February 1946 would you say?

PARKER: Somewhere around there, yes.

NORBERG: And yet you still had this...

PARKER: One of the things... one of the requirements that was actually in the contract was that we had to have a line of communication between Washington and St. Paul. And one other thing that was beneficial at the time, was that I had this fixed base operation in Northwest Aeronautical, for which I had licenses from Pratt and Whitney, from Douglas, from various companies in the aviation business. I had an airplane of my own, which the Cessna company had provided for me at the end of the war. It was a converted twin engine trainer. They built 5 or 6,000 of them for the Canadian Air Force. I paid cash for it, but that was really the first one of its kind. Anyway, I had an airplane so I could fly these fellows back and forth which I did for a while, both in Washington, and in St. Paul and to Dayton and wherever we had to go. And as I say, these were pretty exciting times. I didn't know what the hell I was doing to start with.

NORBERG: Well, it turned out to be a very interesting enterprise, regardless.

PARKER: Well, at the time after we had these meetings here in Washington, one day I reserved the fourth floor of the Metropolitan Club, main dining room, and I invited through Norris, and Meader, and Engstrom, all of them to come - I think 92 of them came with their wives - to meet my wife and I at the Metropolitan Club so we could see each other, to see that they were really human beings, they were there, there were this many people. They were agreeable to binding themselves together and signing this contract to spend three years. They were all, of course, classified people and so forth. I always give my wife a great amount of credit for this, that we made a fairly favorable impression on them, as they did on me. And this was the start of it. And if I had to do it over again, I wouldn't know how to do it.

NORBERG: A number of these men I'm not going to be able to talk to for obvious reasons. Can you recollect anything about this early group, and I'm thinking about the people who were most helpful in achieving success within the company, Engstrom, Meader, Tompkins, Norris, whom I can talk to.

PARKER: Well, Meader, I must say, was not a help. He was not one of the scientific people. He was an administrative man. He had run the Navy's Computing Machine Laboratory, as I said, at Cash Register during the war and he was a... Well, he was one of the three people that put this thing together, that made the proposal for it, but Meader was a difficult man to handle. He didn't get along with Norris. Engstrom was afraid of him. He was, I must say, a trial for me, too. And I finally bought him out.

Going back, these people paid 10 cents a share for their stock. Those who couldn't even afford to pay ten cents a share, and there were a number of them who couldn't, who didn't have the funds to do it. Through Dick Lilly and the First National Bank, I had signed a blank note that each of these fellows that wanted to borrow money from them to buy their stock, they could go down to First National Bank and get it. Behind that, they didn't know it, but behind that was my note to support it.

Well, there came these different unhappy things with Meader. One of the major problems to start with was he wanted

to stay in the Navy Reserve, he wanted to remain as a Captain of the Navy. And he wanted to become an officer, and he was an officer, Vice President of ERA, and he just couldn't serve those two masters. And in any event, he did get out of the Navy. But as I say, he was the one of all the group that had come together, he was the one person that, though I must give him credit for being one of the people that originated the idea of keeping the group together and trying to do this, but he was a...well, a real problem.

NORBERG: How about Engstrom? What did you think about Engstrom?

PARKER: Well, Engstrom was a very fine, a very fine man in many, many ways. He had a weakness: the bottle. He probably was one of the best educated men I ever knew, he was a Professor at Yale, I guess you know, of mathematics. He had this tremendous background and really was a very fine man and I'm sure he made a great contribution, particularly during the war. I kept looking around here on my desk because you know this group also worked with the British. And Gordon Welchman, who headed that... I had a thing on... I just cut out of the paper about two weeks ago that Gordon died.

NORBERG: Yes, I saw that.

PARKER: Oh, you saw that.

NORBERG: Yes, I saw it in the New York Times.

PARKER: And he's the only person, however, that came and joined this group, he came over from England and worked for us.

NORBERG: Well, how did you interact with Engstrom? Here's a man who is working on the technical side of these developments. How did the two of you interact? What did you look to him for?

PARKER: Leadership with this technical group. Bill Norris was really the administrative vice president and did an excellent job in every way.

NORBERG: How were your interactions with Norris?

PARKER: Excellent. Always.

TAPE 2/SIDE 1

NORBERG: You say that your relations with Norris were excellent and I have no reason to doubt that. I'm interested, though, in what the two of you did. How did you divide up the duties, for example? What did you rely on Engstrom for, what did you rely on Norris for, what did you do yourself in the interaction with the Navy or with financial people like Lilly at First Bank and so on? See when you read an annual report, it's a relatively cold statement about what working capital is available, what profit there was, what income there was and so on.

PARKER: All right. Well, I counted on Norris as being, just as I said earlier, an administrative vice president. He had enough engineering background to be able to communicate with the technical people. And of course Engstrom was really the leader in that. I always used to feel that this group of people sort of felt sorry for me, this poor fellow sitting up in that front office who didn't know what was going on, you know, and didn't understand any of these really technical things and so forth.

NORBERG: Did you feel that way?

PARKER: No, no. But I wasn't technically capable of really understanding. I used to go out to everywhere and I always tried to go through the factory - I call it the factory because that's really what it is - once a day and stop everywhere. Sometimes, I'd have Bill Norris, sometimes Howard Engstrom, sometimes Meader, and then I'd have whoever were the other heads of things, and I'd try to assimilate as much as I could. I'll give you sort of, to me, an

example of what we were doing. When our first complete on-line system was built, Jack Hill was the engineer in charge. And I used to go out, and he'd brief me or update me as to where we stood and what we were doing, and I'd say, "Jack, why are you doing this that way?" He said, "Don't ask me, go ask Arnold Cohen. He's the one who said to do it this way." And here he is, he's the top engineer. All I'm saying is that this was done by absolute pioneers; a lot of this had never been done before. So, there wasn't anything to compare it with, there wasn't any background. What we had to be able to do was to come up with a finished product to satisfy the customer, which in this case was the Naval Communication Annex and then of course the NSA, which is now out at Fort...

NORBERG: Fort Langley.

PARKER: No.

NORBERG: You're thinking of the NSA?

PARKER: Yes.

NORBERG: Fort Meade.

PARKER: Fort Meade.

NORBERG: But there were more than just the Navy contracts in those early years.

PARKER: Oh yes. Oh yes.

NORBERG: Several other kinds. Who was out getting those? Was it you?

PARKER: Primarily. Primarily.

NORBERG: Because a number of them are with the airline field. And it seems to me there's a natural connection between your early...

PARKER: That's right. This is where this comes from. It comes from our relationship particularly with Northwest. At the end of the war, too, when we first got this started, I was very interested in creating something for the airline, particularly on the reservations. If we could use a computer for dealing with paper things, which I call reservations, versus dealing with the controls, which we're presently using in aircraft. And wherever I thought there was some place that we could get something, that we had the talents and we had the facilities to do, we could get to do them. This may not be good to put on your machine, but in those early days, our first contract I remember I told you had to be taken by Northwest Aeronautical. In order to keep Northwest Aeronautical going, at one time we developed a small tank truck to service small airplanes on an airport. And that man up there [pointing to his picture], General Doolittle was then Vice President of Shell and it was through him that I got an order to build, I've forgotten how many, maybe a hundred or two hundred of these small little tank trucks. Because a small airplane takes 20-25 gallons and a big aircraft takes 1,000 gallons. And that gave us a start, that gave us some money. And because we had done that business, somebody suggested to me that we ought to get a truck that could take the waste from the toilets. And so help me we both designed and built them. And here's my scientific symphony orchestra playing out here doing this sort of thing. You asked me what you did to make this thing go, but it was just doing something all of the time trying to get...

NORBERG: Now why was that necessary? Was that necessary to keep these other people occupied that had been with you during the war or was there an imbalance in the flow of funds through the contracts?

PARKER: No, not then. Because, you see, then I sold Northwestern Aeronautical Corporation to a local group there. No, this was merely to keep that cash flow coming in instead of going out to where I wouldn't have any more money. And this was something I couldn't go and talk to anybody about. I was under complete raps and what was I doing? I couldn't tell anybody what I was doing other than we had some government work and we were doing whatever they

asked us to do.

NORBERG: But you couldn't count on them to keep the cash flow going I take it?

PARKER: Who, this group of ERA fellows?

NORBERG: No, the government and the contracts you were getting from the Navy and the Army.

PARKER: Oh no, no, no. They were concerned, too. They were concerned about... I mean we had on one of the occasions, I'll never forget this one. I was flying back from, I think from Washington to St. Paul, and back in those flying days I had a regular pilot, but on these fairly long flights - between here and St. Paul was a long flight for us because we flew at 140-160 miles an hour - we shared the fun. And he was on this backseat lying down taking a little rest and I was flying by myself. I was listening to the radio and I heard on the radio that this Jack Anderson... Who was it before Jack Anderson? The columnist?

NORBERG: I think of Walter Lippman and people like that, but they weren't in Anderson's business.

PARKER: No, no. The one before Jack Anderson. Anyway, I knew him well. Anyway, he had this story and he'd taken it to Congress and a committee said how reprehensible this was that these people at this company that had been formed, that these fellows had thrown their caps up in the air while they were in the service and ran out and caught them and now they were getting these great benefits from this company they were in and so forth. Well, a flood of reporters, pounced on us of course. Well, I almost put the airplane in a dive right then and there, but what are you going to do about it? He had written this story and he had gotten it into about 40 papers, I guess, and I guess there's something like 280 papers that carried this. And it so happens that I had another classmate, Emery Hylaut, Captain, who was head of Naval Intelligence. So as soon as I got to Minneapolis and St. Paul, I immediately got him on the phone and he got on to this and he got the story squelched in about 200 odd papers. Some of it had gotten out. And of course this then became very, very touchy for us. Bill Norris handled that beautifully at the time,

because I wasn't available and Bill just said, "No comment," to every question they had. There were some really dreadful attacks. The press, of course, wanted to get in, but we survived.

NORBERG: That was around 1950, wasn't it?

PARKER: It had to be because we were well under way by that time.

NORBERG: Arnold Cohen and Erwin Tomash mentioned that in their article that they did several years ago in the *Annals*. Did Meader have anything to do with that?

PARKER: Oh that leakage at that time?

NORBERG: Yes.

PARKER: No.

NORBERG: I don't know that, I was just fishing for any possibilities. You've mentioned a number of your classmates who...

PARKER: Just happened to be at that age, you see.

NORBERG: Yes, I was just going to say that. They would be at the age where they would be in positions of command that might be very interesting.

PARKER: They were. They were. I went to some other extremes. I'm not going to put this on tape, but I wanted to be able to get to the President of the United States if I had to. And therefore I got somebody that I could trust completely, that could have direct communication at any hour of the day or night to the President of the United

States if it was necessary.

NORBERG: And that would be the head of Naval Intelligence, no doubt.

PARKER: Well, I say, I'm not disclosing this to you, I'm just saying that I did have...

NORBERG: No, no, no. I...

PARKER: I'm just saying that I did have, that I went to every possible way that I knew to keep this thing from being disclosed.

NORBERG: I guess I wasn't...

PARKER: I had some moments that weren't just all happiness.

NORBERG: I can understand that. Well, getting back to 1946 however. Were all these classmates in any way useful in getting the early contracts?

PARKER: In getting the...

NORBERG: The early contracts from the Office of Naval Research and Bureau of Ships?

PARKER: No, the only... They were helpful to me as I told you about this Captain Hylaut in getting this story squelched because he immediately talked to the Chief and found out what it was. And then I had another classmate, an aid to... he was then Assistant Secretary; he became Secretary of the Navy afterwards, John Sullivan, who was really a great friend of mine. I had seen him here in Washington and I'd not told him what I was doing but I guess that he knew that I was doing some work for the Navy, but I hadn't told him what it was. Somebody had, I don't know

whether it was this... It was not Anderson, but who proceeded him?

NORBERG: Drew Pearson?

PARKER: Drew Pearson. You know, I'm so glad that my memory's mixing up. I disliked that man so much. Thank God, I don't have to remember his name any longer. I had some personal experiences with him. I had a dear friend that came home one night and found Drew Pearson in bed with his wife. I was in the middle of that one time with this fellow. So you can understand I'm not very fond of him. But in any event, this classmate of mine told the Secretary what Pearson said and the secretary told him, "You tell Mr. Parker anything further he's going to have... any conversations he may have with me, to put it in writing." He didn't know. He was in such and such a position and he was the Assistant Secretary or Under Secretary and he doesn't know what I'm doing. All I'm trying to point out is the wraps under which we were trying to operate. Well, I said to him, "You've just got to tell him to speak to the Admiral and tell him what you did." Well, within an hour, of course, back came a telephone call with all the apologies in the world and so forth. So, they were helpful knowing who these people were and so forth. And then also because I lived here in Washington I had a number of good political friends. Not because I was ever in politics, but I'm talking about people in the Senate; I'm talking about people in the House. People who could be, if necessary, a great help. I had that relationship. But fortunately we didn't have use for many of those.

NORBERG: After the war when did you move back to Washington?

PARKER: Oh dear. Let's see, 19--, I guess it must be about this time here. This is 1952-56 in which I was Vice President of Remington-Rand. I set up the Univac division of Remington Rand for commercial purposes and these are the people who were... That one girl was the sole member of the Univac division of Remington-Rand. She and me. And these are the people who became part of it.

NORBERG: So not until 1952 did you move back to Washington?

PARKER: Well, as I say, I never left Washington. I used to come home weekends and I lived in Rehobeth, Delaware, in the summertime and we used to fly back and forth weekends. Don't forget I also had this office here in Alexandria.

NORBERG: That's what I'm trying to ascertain. How much time you spent in Alexandria, how much time you might have spent back in St. Paul.

PARKER: Well, I would say that I probably spent 80% of my time, maybe, in St. Paul and 20% here. That depended on what I had to do. The kind of contracts that we had for the Navy, of course that was done here. I used to spend time, of course, down in deserts, down in mountains.

NORBERG: So it would be the normal type of management position, you could be anywhere that the company had any business to conduct.

PARKER: That's right. Well, and plus with all the people we dealt with our suppliers and so forth. I was on travel status I would say maybe 50% of the time.

NORBERG: Just for completeness. Were you pursuing other financial interests at the same time? Other companies?

PARKER: I was still a partner, you see, of Auchincloss, Parker and Redpath and I know I got the progress reports and so forth, so I was constantly appraised of what they were doing. But I can't recall taking any specific parts.

NORBERG: I understand that you gave testimony before the House Armed Services Committee sometime in late '46. Do you recall the occasion?

PARKER: About ERA?

NORBERG: I don't know that. I don't know what the topic was.

PARKER: I can't recall.

NORBERG: I'm wondering...

PARKER: I've been before committees, but I don't remember it being for ERA.

NORBERG: What's the first one you remember? The first time you gave testimony?

PARKER: Oh dear, I don't know. I lived here in Washington. I say I was a partner of this brokerage firm. I belonged to the Chamber of Commerce and the Rotary Club and I testified before committees on things for the community of Washington.

NORBERG: So this would not be an unusual event for you then?

PARKER: No, no.

NORBERG: Fine.

PARKER: As far as I know, nothing ever went before the Congress that I can recall about ERA.

NORBERG: As I said, I don't know what the purpose was, but I will try to look that up. A number of things were going on in the computing field in 1946. In February, things like the ENIAC were announced and put on public display and so on. Were you aware of these activities?

PARKER: I would...I would say yes. Because with Engstrom and with Norris, particularly here in Washington, I would meet with them, with the people they were talking to, these would be the heads of people like at the Harvard

Computation Laboratory, Dr. Howard Aiken.

NORBERG: Right.

PARKER: And through, as I say, and primarily these people, through Howard Engstrom, where, again, they were the other pioneers that were in this field. We were also always looking to see whether the ERA couldn't do something for these different groups or organizations.

NORBERG: Can you give me some examples of that?

PARKER: Well, I'm trying to think... Gee, I don't know if I can give you specific examples. I can't think of them.

NORBERG: Let me ask the question differently then.

PARKER: But because I've lived here, I've belonged to the clubs here, when Howard Engstrom, or...well, primarily Howard Engstrom, or anybody else in our, what we called our sales organization wanted to take somebody to lunch, I'd take him to the Metropolitan Club for instance. I knew a lot of people in this particular field which was just opening up. People from Princeton. I think we did have a contract with them. I think we did have a contract. And this had to do with... with... It had to do with jet engines. No, excuse me. But we were pursuing every possible angle that we could get exposed to and there were a lot of fine people we met that later on have become, you know, very important people in this whole field. And I met with Burroughs, I met with National Cash Register, I met with... Oh I met with companies in the Boston area. We met with people who were building the coding machines and so forth, things that we might do sometime too, and so forth. I'm going back 40 some years now.

NORBERG: No, no. That's perfectly all right. I just keep jarring and it keeps coming out so that's okay. When you mentioned companies in the Northeast, did you have any interaction with the people at Raytheon? And I'm wondering how high up.

PARKER: Yes, well, now I'm trying to recall what we did with Raytheon.

NORBERG: Did you know Marshall for example?

PARKER: I don't think so. The present chairman of Raytheon is the former Secretary of the Navy.

NORBERG: Yes, he followed Marshall. Marshall was around when you were forming ERA and he had been involved with a number of academics from MIT who were interested in the radio business.

PARKER: I may have, but it just isn't ringing a bell right now. I met so many people during this period. All of whom were a completely new kind of people to me. I either knew Navy people, or I knew people in the investment world. All of this other was so new to me that...

NORBERG: Howard Aiken seems to stand out in your mind. Why?

PARKER: Well, maybe it's the little things in life that you remember well. When we were writing this report for the Office of Naval Research for Mina Rees, we'd sent out an interrogatory, in I think the form of a postcard, I'm not sure how it got there. In any event, we'd send out this questionnaire as to what these people had done and what they were presently doing in this field. I hadn't been away for I don't know when, because this was a... I'll tell you, in the ERA days, it wasn't a nine to five job. Many of the days these were 18 hour days. In any event, I had taken these three days off to go down to this hunting lodge that Harry Guggenheim owned down just outside of Charleston. And I was down with a couple of other Navy people, Admiral McDonell, and Admiral... One of the highlights of his place down there - and it was a gorgeous place - he never allowed a telephone. So I was in there for a couple of days without a telephone and about the third day a message came in by messenger and told me that it was urgent that I call this number in Boston. Well, just before going on this trip, my sister had had an operation for gallstones, but she was home and everything I thought was all right, but in any event, I couldn't imagine any urgency from anybody in

Boston except her. So I made this special trip to get into Charleston so I could get to a telephone and call up this number and who should be answering this phone but Howard Aiken. And if he didn't give me a dressing down that, you know, here we were we were newcomers and so forth that these people had dedicated lives to what they were doing and so forth and we shouldn't be doing it the way we were doing it. Well, of course, I was apologetic as I could be to him. Later on everything turned out all right, but we got him in the book and gave him credits, which is what he wanted most of the time and so forth. But I guess that's why he stands out with me. But the Harvard Computation Laboratory was, at the time, one of the real pioneers. And in my early days with Remington Rand, Jim Rand having come from Harvard, the first UNIVAC computer we ever gave away we gave to Harvard and Howard Aiken. So as I say, Howard Aiken stands out a little bit. And then we also gave one to the University of Pennsylvania, because that's where the ENIAC was built.

NORBERG: Well, beside your mention of interacting with Jack Hill and people on the floor at ERA, did you make any effort to understand the technical implications of what it is that ERA was doing?

PARKER: Oh yes. Oh yes.

NORBERG: Now was that all done inside or did you try to make contacts outside as well?

PARKER: I don't quite follow your question.

NORBERG: Well, I'm trying to avoid asking it quite specifically because then the question becomes either yes or no. This interaction with Howard Aiken would have to be somewhere around '49 or so before the book was coming out.

PARKER: Yes.

NORBERG: And I'm wondering how much interaction you may have had with these technical people before that.

PARKER: This came out in 1950, *High Speed Computing Devices* supervised by C.B. Tompkins, James H. Wakelin, and Bill Stifler. That was May 1950 and the frontispiece by Howard Engstrom. And then the second one, of course, was written by...Well, isn't that strange that it doesn't? Yes. A new introduction by Arnold...

NORBERG: Arnold Cohen.

PARKER: Arnold Cohen, but you know it doesn't...Original edition 1950 by McGraw-Hill, this edition 1983 by Tomash Publishers. So this was in May of 1950.

NORBERG: In 1950.

PARKER: We've been working on this, though, maybe about six months earlier than that.

NORBERG: Oh yes, easily. The survey was done in late '47 and throughout most of '48. I've seen some trip reports of people having visited laboratories like Princeton and MIT. Arnold Cohen has a number of his own, for example, from that period. Did you visit those sites? Did you go to Princeton? Did you go to MIT to visit those laboratories?

PARKER: Well, I went to... Yes, I went to MIT. I went to Arthur D. Little and I went to Harvard. I don't remember going to Princeton. But Harvard and MIT were the principal ones. And of course Pennsylvania was important, but here again it was because the UNIVAC group that came out of...

TAPE 2/SIDE 2

NORBERG: How about with other major companies like IBM?

PARKER: Oh, I've had oceans and oceans of discussions with them. Again I come back to the early days of the formation of ERA, coming about through Nelson Talbot. I come back to tell you that Nelson Talbot and Tom

Watson were classmates. Nelson Talbot's father and Tom Watson, Sr. were Daytonians, were very close. So Bud Talbot thought the very best place for the ERA to go was to go with IBM. And I said that I would never make an offer to sell our company, but if somebody... I only owned 50% of the company. Well, I didn't really own 50%, because I'd given little parts of it to Dick Lilly and to Bud Talbot to get them on the board. But I said if anybody ever made us an offer I would consider it for all the stockholders. Well, Jim Birkenstock, who was a Vice President of IBM, had an assignment from... The real boss man was Thomas Watson, Sr. And another very fine man at IBM, who was head of the Patent Department, they were really the top two people at IBM, Tom Watson and this other man. It was one of those things went out of that memory system. Well, I can't tell you how many meetings I had with them and Howard Engstrom, too, because I remember he and I once went down to Palm Beach to see this patent man, who was about number 2 in IBM at that time.

NORBERG: Yes. I can see his face - sort of a chubby faced man, balding head but I can't remember his name either.

PARKER: And when he saw that we weren't going to make any, that he wasn't making progress with us, he offered Engstrom a job to come with IBM. Well, here again as I say, Engstrom was a fine man, he had a bad problem, later on it killed him. But, in any event, we had a very pleasant relationship through Birkenstock. He's now retired, lives in Delray, where I live in the winter, and I'll be seeing him in the next couple of weeks. And every time we get together we reminisce about why, you know, it hadn't gone that way.

NORBERG: Well now, when were these discussions going on?

PARKER: This must be now in '50...

NORBERG: That late?

PARKER: '48, '49.

NORBERG: Yes, '48 I would think.

PARKER: '48, yes. See IBM knew about us from the very beginning, because they were on the other end with the punched cards and the punched paper tape and so forth. What was the other question you had? It IBM or...

NORBERG: Well, ERA and IBM developed a contract for drum design in 1949 and what I'm curious about is what your part was in these contract discussions.

PARKER: It was for what in '49? I didn't quite follow you.

NORBERG: A drum design.

PARKER: Oh yes. Well, here's where they got one of the basic patents for the drum design. It was an exchange of patents. Well, I think I actually negotiated it, but it was with the advice and counsel of perhaps everybody involved at the present time, Engstrom and... See, it was the patents...there were three patents. One was held by ERA, the Cohen patents; one was held by Teleregister; and there was a third one. This is where we had the exchange of patent licenses with IBM.

NORBERG: Now it seems to me that there were two stages in this negotiation with IBM. There were a series of meetings... Excuse me, at least one meeting, I'm not sure whether it was a series or not. There was at least one meeting in which there was some discussion with the IBM people about what ERA could do. Now I don't know who initiated that meeting. I don't know whether it was you trying to get business with IBM, or whether IBM came to you.

PARKER: I think IBM came to us.

NORBERG: Now then I understand that when it got technical you brought in the technical people like Arnold Cohen,

who was then part of those discussions. And then it went back to contract discussions again in which the technical people really didn't have any role and once you and whoever else was on the negotiating side...

PARKER: I think probably that Bill Norris was brought into it at about this stage.

NORBERG: Could be, could be.

PARKER: Yes, that would be my guess.

NORBERG: Now, then when you came back to the company and presented the staff with this contract and with the meaning of the contract, there was a good deal of discontent among the engineering people. Do you remember any of this?

PARKER: No, I didn't. That might have been the kind of thing that they were critical of me of perhaps, but I didn't know it, because it certainly had the approval and not only the approval but probably the urging of Engstrom and perhaps Norris.

NORBERG: Could be.

PARKER: I wouldn't hear the complaints that were down the line in the laboratories.

NORBERG: One of the people from Cushmann, Darby and Cushman was called in to explain the meaning of the contract. That I do know. There were meetings...

PARKER: Now he was... I haven't seen him for a long time, but he was the cousin of Bill Norris' wife.

NORBERG: McNalley?

PARKER: McNalley.

NORBERG: Was there any thought, at that time, of trying to sell the company?

PARKER: No.

NORBERG: There was not.

PARKER: No. Not in my mind. But I think there was in Meader's mind. Meader did his best to get us to sell the company to IBM. He was going to sue me because I could have sold the company and gotten \$3 a share. So instead of that, I bought his stock at \$3 a share, and that's how I got him out of the company.

NORBERG: So that would be in early 1950 after this agreement was signed.

PARKER: Yes.

NORBERG: All right. So that occasion...

PARKER: Oh by the way, let's make the record clear. I said I was going to buy this stock from Meader, but I made the offer available to everybody in the company, every stockholder. Nobody wanted to pay \$3 a share for the stock at that time. And it wasn't worth \$3 a share at that time. In my book, it was my contribution to making the company stronger. But it was on the basis that he felt that we should have gone with IBM, and that he could get money out of it then. So that's how I happened to buy him out.

NORBERG: Why did you make the offer to anybody else in the company?

PARKER: I gave any other stockholder that wanted to join with me and buy the stock. I wasn't going to buy the stock, because there was one other transaction that had happened when somebody in the company had bought some stock from somebody else and it started setting a pattern that somebody was going to go in and, you know. I said this is something I couldn't tolerate. That we're going to have this company, particularly myself, I was doing this... This was so exaggerated over what anybody... Don't forget, they only paid 10 cents a share for this stock. But it was really blackmail that I was paying at the time. As it turns out, it turned out all right because when we traded the stock in for Remington Rand, we got \$8 and a half in stock, in value of the stock.

NORBERG: Well, wasn't there another buyout earlier? Someone else was bought out as well.

PARKER: Well, this is what I'm talking about. Somebody else had... I don't know who now.

NORBERG: John Howard?

PARKER: I don't know if John sold his stock or not, but he may have. He may have.

NORBERG: It seemed to me that there was some...There was something going on, probably in '48 with Howard.

PARKER: Could have been.

NORBERG: And I don't remember whether it involved you or not.

PARKER: It didn't involve me, no. No, I just heard about it after the fact.

NORBERG: The period from October '46 to October '47 was reasonably profitable. It was not the most profitable year, but it was a reasonably profitable year, and I'm wondering to what you would attribute this.

PARKER: Well, in that year, '46?'47, you heard me talk about the kinds of things that we did. We made profits on each of these little things that I told you about, that we had gotten into. From then on, when we didn't have any other outside work, we just got the fees from the government contracts.

NORBERG: And so that would depend on the military cycle and when things were not so good in '49 and '50 you begin to see a decline in the income of ERA.

PARKER: Yes, and see these were CPFF [Cost Plus Fixed Fee] contracts. I insisted in the very beginning that we have a representative with the GAO resident in our place, because I'd been through this thing during the war and I wanted to make sure about... And of course, being a sort of isolated character, they were all the more particular about us as to what our eligible costs were. I'm sure that we could have made more money, but in order to keep this group together and to keep happiness as best I could, I took every good excuse I had for giving a dinner. I would have everybody in all the engineering, all the technical staff, when I got somebody coming out from Washington, for instance, from the Navy headquarters which is now NSA and so forth, and I paid for those myself. None of that ever went into expenses. But having seen that we had those dinners, then we got attacks from others, because we must have done something. But I'm so happy that I did it that way. Oh, I just know that it made a contribution to keeping these people together.

NORBERG: You had two different kinds of auditors on site, didn't you? There would be the GAO people.

PARKER: We had the regular people...

NORBERG: Navy people.

PARKER: Right. Regular Navy people, yes. But if you didn't have the GAO with you then it came down at the end of the quarter or six months or a year before an audit came, and I'd been through that during the war and I wanted somebody there to approve whether or not this was a billable expense. This is one of the things that I can't

rationalize what's going on today with the GE's and General Dynamics and so forth. Now in my day that couldn't possibly have happened.

NORBERG: But yet your contracts were relatively small, even for the time.

PARKER: Oh yes.

NORBERG: And so why would that be such a worry? That GAO people were not present on site or were present on site or whatever. Now why did you feel you really needed to understand what was a billable expense and what not?

PARKER: Well, we had several meetings with the Navy that came in to ask whether or not these costs were justified and so forth. It was a constant battle.

NORBERG: So you had some experience without a GAO auditor on site.

PARKER: Oh yes.

NORBERG: I see now. I have seen some of that in the correspondence and internal memos of the company, where, especially in 1948, when there was a series of negotiations going on with National Bureau of Standards, with the Air Force, and with the Navy all at the same time. Three different contracts. And people in St. Paul trying to decide how to allocate the travel expenses of these people to which contract and whether it was eligible and so on. So yes, I do understand that there was a problem, but it seemed to me to be a relatively trivial problem.

PARKER: Well, it was but it's those trivial things that just kills you, really, on these kind of contracts. For instance, I'll tell you an example. It just so happened that Bill Norris and I were coming up from Chicago to Minneapolis together. We were working on a proposal for another contract and it was our chance to get together. It was a four-hour trip. So we got a room. Well, that was an extra \$8 or whatever the amount was. Why did we have a right to

do that and why didn't we just, you know, take an ordinary seat. Well, because these were classified documents that we were carrying. And if we were going to work on them we couldn't work on them out in the open and so forth. But this is the type of thing. All I'm saying is that... It was mini pickins' left, you know. But it was the little things that hurt you, not the big ones. Everybody did the big ones all right.

NORBERG: This raises an interesting question. You just talked about you and Norris working on a proposal. How often did this occur?

PARKER: I don't know how often, but...

NORBERG: I mentioned to you when I first came in that I had seen the minutes of the management committee; you, Norris, Meader for a while, I can't remember who the other two were. There were five men anyway on the committee. I've seen minutes for 255 meetings. That's a weekly meeting for five years, roughly. And these meetings take up two different kinds of topics. The primary topics are all personnel matters, what sort of health program shall we supply, what sort of pension program for the employees and so on, what's the vacation policy and such. And then there's a very small amount of discussion, I shouldn't say small, I didn't read them all that carefully, but there is some discussion anyway about technical topics. Shall we go after this kind of proposal or that kind? I can give you one example of what I'm talking about. In 1947, late '47, I think, or early '48, IBM came to ERA to purchase some multiple numbers of small units. It was some sort of a motor device. It was not a drum storage system, but a small motorized device of some kind. Apparently ERA had the capability to build this sort of thing and they wanted 3,000 units. Question was for the management committee can we do it? Shall we bid on it? What should the price be? What kind of profit can we expect? Now, that discussion is one of the few detailed ones that I found in the management committee discussions. Instead, when I was looking for technical information, I found Norris meeting with another small group of people who would be the next level down from him, certainly. People like Rubens, Hill, Mullaney, Cohen, well, anyway that's a good representative list of names. And they were discussing the research and therefore the technical possibilities that could be achieved. Now my view of what was going on, it seems to me that it was at that level where many important technical decisions were being made. How much of that information then filtered up

to you?

PARKER: Well, whatever their decisions were came then to me.

NORBERG: Did you ever have an effect in the opposite direction on any of those decisions?

PARKER: I don't believe so. I don't believe so. The only thing I might have had some negative reaction to would be in the financial side of it. I don't know what detail they might have brought in and... I don't remember.

NORBERG: In most of those discussions, I perhaps should add, they were all to do with these government contracts. I don't find very much about the other contracts at all. What was going on with the airlines and so on. I've not found those.

PARKER: There weren't very many, though.

NORBERG: But for some reason, that material didn't get preserved, at least as I say, I haven't found it. I found the technical side and what might have later been useful to UNIVAC.

PARKER: Say you know something? I wish, I'm sure they've never been preserved, but in my office I had two secretaries. I had one outside and I had...Let's say this is one office and the bathroom would be another office. And the outside girl would take reports if anybody came in and so forth, but practically all these management meetings were held in my office. And she recorded them. I can remember one occasion where I don't know who was questioning now, but something about why I hadn't seen somebody who had come for some reason. So we went back, and this was several months later, we went back and she got her notebook out and here was that particular day and there must have been 75 items that had gone through that office and people. And she had the times that they came in, you know, 8:05, and 8:09, and so forth, who they were and so forth. So when they finally looked it over and so forth, well there's just no way you could have slipped another one in on this thing. If you could only have had

those things, because that had a complete history. If somebody had the energy and the interest to do it that looked over those. I'm sure that's long since gone.

As a matter of fact, my files that I took from ERA in Minneapolis when I went to New York, they were shipped down a couple of big files like these and then when I left Sperry Rand and came to Washington I've culled out some of the things that are left, but most of them had been thrown away. And then I used a lot of these things years afterwards. After, it must be in the '60s somewhere. There was another one of these investigations about ERA. No, it wasn't about ERA really, it was about Northwestern Aeronautical Corporation, that's what it was. But it led up into ERA and this is one of the Army investigations. I supplied them with all kinds of materials and so forth. I was looking up there, because I had to look through all this Northwestern Company papers, you know, we used to put out a paper. We had a hockey team that led the league out there for a couple of years, and so we did everything during the war to develop putting these things together and it was an interesting history.

NORBERG: What has happened to all those company newsletters?

PARKER: Well, I just don't know. I don't know what's happened to them. National Geographic wrote us up one time, I've got copies of that.

NORBERG: That was during the war I take it.

PARKER: During the war, yes. As an example of how the company views non-strategic materials and how we built the gliders. I think I said to you, I think there were 14 original glider contractors and we ended up with only two: Ford, Dearborn, and ourselves. And as I say, that's why we were building all those at the end of the war.

NORBERG: I have seen the liquidation papers for Northwestern Aeronautical and I recall it was sometime in 1948, is that about right?

PARKER: That's about right. Yes.

NORBERG: By 1950 it was becoming at least conceivable, I don't know whether it's fair to say that it was obvious, but it was at least becoming conceivable that this new digital computer industry was a comer.

PARKER: Right. Oh yes.

NORBERG: It was beginning what seemed to be a growth cycle.

PARKER: Right.

NORBERG: Where did you see ERA fitting into that picture? This is 1950 now.

PARKER: Yes. Well, I'll answer that. This was giving me a great deal of fun at the time. To go back a little bit, remember I told you I was sort of brought up in the beginning of the aviation industry and to finance the airlines when they really didn't have anything to start with, they had the right to fly from Washington, let's say, to New York, but you had to raise money to buy the equipment, to train the pilots, you had to have an organization, you had to have all these things. And as they developed they needed more and more money, so for ten years in the airlines, any one of them, you just had to have more and more and more and more. Well, how did you get that? Well, you got it by mathematically really, by saying to them here's what we've done now, here's the projection for the future and so forth. So I was doing the same thing about ERA. We were going to be in the computer business we were going to need a lot of money. And I said well, we can get it; we'll become a public company. And that we'd, you know, we'd have to project and I said we'd have to do it by little leaps, but we could do it. And I still think we could have done it. We had to acquire some other people. We got to the point that if we were going to go commercial, go commercial on this business. We needed lots of money. And that's when Remington Rand came in and made this offer to us and that's the route we went.

NORBERG: You didn't see any other way of getting this money, I take it, but selling the company.

PARKER: Yes. I did have to see the way. But if it would've gone the way I just described a moment ago, we'd have to take it by little leaps and bounds by going public and I could have done this. We could have sold our stock. We had enough background, except the devilish thing at that time was that we were still under wraps about the things for which we had been formed was to carry on our code work. And so you couldn't go into the SEC and show them the background of all these things, and it was a real problem.

NORBERG: Were there problems with the sale to Remington Rand?

PARKER: Oh no.

NORBERG: Well, why not? Here's a company that's classified, how can a public company like Remington Rand acquire it?

PARKER: Oh well, all this had to be cleared. Oh I did all this with the Navy here, with the government. Oh yes, we just didn't do it all on our own. They had to be cleared and they had to... But they were making the offer. I wasn't making the sale. They were making the offer.

NORBERG: Did they then come to you?

PARKER: Oh Remington Rand came to me. Oh yes.

NORBERG: Do you recall the occasion?

PARKER: Oh, roughly, yes. I got a call from someone, I don't remember his name now, from a brokerage firm in Boston that said he wanted to come and see me and I said come. And so he said that they, his client, would like to

make an offer to buy ERA and I'm sure they did and I came down. It immediately dropped out of his hands. I came down and met with Remington Rand, Jim Rand, the President, General MacArthur, who was Chairman, and with the Chief Financial Officer and I spent about four months here in Washington with the FTC. They qualified we weren't violating anti-trust laws and so forth. We really ran an educational course down here for the FTC about the computing business.

NORBERG: I've seen the documents, I know what you're talking about.

PARKER: Did you?

NORBERG: Yes, I've seen them. Okay, were there other such feelers?

PARKER: Well, IBM. IBM was always in the background.

NORBERG: But did they actually talk to you about it?

PARKER: They never made an offer, no.

NORBERG: But did they even give you an indication that they were thinking about it?

PARKER: Well, they gave me every indication in the world that if I would come to them and say I'd like to merge with them yes. I always had that as long as we were doing what we were and as well as we were. We've always had IBM as a background. As a matter of fact, after it was over with, both Burroughs and the Cash Register and others all said, gee, why didn't you let us know you were for sale and so forth? And I said, well, I wasn't for sale until somebody came in with an offer that I put up to the stockholders and we felt this was in the best interest of the company to go.

NORBERG: I recall there were a number of meetings in which some of the technical staff was trotted through other companies, like Honeywell, a sort of a get-together gathering to see what sort of mutual interest there might be and so on.

PARKER: Yes, well we did it with Honeywell there and also with Minnesota Mining.

DATE: May 6, 1986

TAPE 3/SIDE 1

NORBERG: In looking at the documents associated with the ERA/IBM agreement in 1950, I don't see much evidence in the records that survive of any interactions that have something to do with the possible looking over of ERA as a potential purchase for IBM. Do you remember any discussions about a possible purchase? Any questions that might imply that they were looking ERA over?

PARKER: Well, I'm sure that IBM was looking at ERA. There were some, perhaps, high level interests on both ERA's side and IBM's side. I don't know whether the name Colonel Nelson Talbott's ever come into our...

NORBERG: He did. He was one of the people who was the original financial group.

PARKER: That's not quite true.

NORBERG: Oh.

PARKER: Financially, he only came into the picture because I allocated a certain amount of stock at ten cents a share. It was minuscule his financial connection with the company other than he became a stockholder because I wanted him to become director. Nelson Talbott and Thomas Watson, Jr., were classmates at Yale. They were good

friends. Talbott thought that association of ERA and IBM was the ideal solution to the future. It was under quite a good deal of pressure.

NORBERG: What was under a great deal of pressure?

PARKER: For ERA to discuss a possible association with IBM. I met with Mr. Watson, Sr. and also with, I'm sorry I can't recall his name at the moment, but he was I guess the closest person in management to Mr. Watson at IBM. He was head of the patent department. Lawyer, elderly man, very fine man. Both Engstrom and I met with him. Became one of my people, I say "my people"-one of the officers of ERA. Ex-captain, Ralph Meader, who also was very friendly with Colonel Talbott and he urged me to deal with IBM. He thought that this was the way to go. My position at all times with various people that we had possible associations with us, talking about now Burroughs, National Cash Register, Honeywell. I took the position that I would never offer our company for sale, but that if somebody made us a bonafide offer then I would have to put it up to my stockholders. As you know, the professional staff owned 50% of the stock and I owned 50%. The 50% I owned, I had distributed some of it to other people, such as Colonel Talbott, the President of First National Bank of St. Paul, Dick Lilly, who I wanted on my Board and who was very helpful to me.

Get back to the financing. You said that he had been one of the financial people. There was no one who participated in this financing except myself. I had loans at the First National Bank of St. Paul; I had loans in Dakota National Bank. I did have these other people to whom I allocated stock, because it practically was not a financial transaction because it was at 10 cents a share at the time. But as I said before, I didn't pursue this relationship with, I won't say relationship, but attempt to put together ERA with IBM. I wasn't rejecting it, but on the other hand, I wasn't the one making any approach to it.

NORBERG: As I understand it, it never got to that stage. No one actually ever made an offer.

PARKER: Oh, yes.

NORBERG: Did IBM actually make an offer?

PARKER: No, no, no. They never actually made an offer.

NORBERG: That's what I mean.

PARKER: No, they were restricted by anti-trust. As a matter of fact, Remington Rand, who did make this offer to us through an investment banking firm and we finally negotiated and then accepted, we had a long period here in Washington before the Federal Trade Commission getting approval for the acquisition of ERA by Remington Rand at that time.

NORBERG: Why would that be the case? I would think, here's a young company: ERA, not possessed of large production capability, not having many products on the market at the time, judged against major firms like Remington Rand, National Cash Register, and IBM, all of whom had many more products and larger volume coming off the line. Why would this be considered an anti-trust case. Not anti-trust, anti-monopoly case.

PARKER: You'll have to ask the government that question. I'm the one, however, that went through some months of negotiations. In these papers here I can show you today some of the dates, some of the negotiations that went on between ERA or between myself with council from Remington Rand and so forth before the Federal Trade, from which we finally got a ruling. Not that they approved it, but that at that time, they didn't see any reason to move against us if we went forward with it.

NORBERG: Yes.

PARKER: Well, I believe that the industry at that time was so small and that our dealings, of course, had been primarily with the government that the government had background of what we were doing and what they thought

the possibilities were of our development, etc. We had these, of course as you know, that our contract agency was the Navy and all the other government organizations we dealt with, the Bureau of Standards, universities, and so forth. We were acquiring recognition and I suppose at that time the exercises went forward through the Federal Trade Commission, the anti-trust division...

NORBERG: Do you remember those negotiations?

PARKER: Oh, yes. We're talking now 30 some 40 years ago. I can remember less, but I have a few papers here that can refresh me, showing where the negotiations were going on down here in Washington.

NORBERG: Let's go back to 1950, though, rather than to the negotiations. As the IBM/ERA agreement was being drawn up to produce this drum for their storage system, wasn't ERA considering a major product of their own to put out - namely the 1101. Was that going on simultaneously?

PARKER: Well, I don't know whether it's simultaneously or not, but certainly independently. My recollection of what was going on at the time, I don't think that particular project with IBM, I don't think really had any influence on the development of the 1101. This is the first time I think I've heard a suggestion that it had anything to do with it.

NORBERG: OK, what I'm looking for myself is the technical overlap between the development of Atlas or the 1101 and technical development in the IBM and indeed other contracts. But that's not the level that I would ask you about, because I realize that that was the next level down. But, in terms of why, let's say, why one would be less interested in going with IBM in 1950. I know by 1952 we're dealing with a different, both financial and cash flow context in ERA, but certainly in 1950 everything looks like its up; that is, the prospects for putting a product on the market are good, the prospects for achieving substantial success in the industry look good, because the computing industry with digital machinery looks like its on a growth cycle at that time. Even to the lesser technical people, it was pretty obvious that this was going to be a substantial industry. And here's ERA making an agreement with a giant, namely IBM.

NORBERG: Well, as a matter of fact, we were looking at all possible avenues of business then, and over those several years I did my best to acquire some business from IBM. Several times we came down to almost having perhaps a major contractual product arrangement with IBM, but I always came up against the same block from the IBM standpoint that "it wasn't invented here". Whatever we had, they thought they could do better and they did have the power. They had a way sometimes when they wanted to get into something new that they'd give it to two or three different groups in their own organization - unknown to each other I might add of what was going on in development. I tried very hard in early years to work with them, because they were the largest in every way: technically, business wise. We had, which you spoke on a few moments ago about the legal side, it was always my opinion that we had real possible good legal action against IBM, but it came down to points where we could hire one lawyer and they could hire ten.

NORBERG: I remember seeing a document, I think it was dated in 1952, where Bill Norris sent you a memorandum in which he noted that it might be possible to bring infringement suits against, I think it was, 9 companies - Burroughs, TeleRegister, and a whole group of... IBM interestingly enough, was not on the list because of the agreement which existed between the two companies. Well, anyway. Yes, there seemed to be many instances of that sort of infringement possibility.

PARKER: Of course, one of the things that IBM was successful in doing was to getting cross-license agreement with ERA.

NORBERG: Yes, which came back to haunt Remington Rand later on.

PARKER: That's correct.

NORBERG: I'll come back to that in proper order. I don't know how well you remember the Tomash and Cohen article on ERA, but they report on an evaluation of the company's prospects and needs around this time, in fact it's dated

1951. Do you recall the evaluation? Whether it was done inside or outside the company? They in the article listed several options that might be available to the company at the time. One of them was to get additional capital from outside, and another one was to try to increase prospects inside with inventory changes and increase in products and so on.

PARKER: You're referring now to about April 1951.

NORBERG: Yes, that's probably the date. I don't know. I'm asking you about it.

PARKER: Well, this is a, as I say, I'm just back. Only yesterday did I get at this, which was prepared for me. I assume there must have been a cover letter with this, but...

NORBERG: No indication on the bottom of the title page who did the report?

PARKER: It was completely confidential, you know. I didn't have a chance to...

NORBERG: Would you say that this is the document they are referring to in their piece?

PARKER: It may be... I just want to glance over it... If you'd like to look at this...

NORBERG: In looking at this evaluation from 21 April 1951, which I have not seen before, you are the only one who seems to have a copy, do you remember at all whether this was done inside the company? It doesn't look like it came from consultants from outside. They would have had their name plastered all over it I would think, if it was from them. This looks like a financial analysis from inside the company.

PARKER: It was.

NORBERG: It doesn't provide the options in there that are listed in the Tomash and Cohen article.

PARKER: Which is in the other...

NORBERG: That's right. And therefore, those had to be conclusions from this. And I guess that's the issue. Where did those conclusions come from?

PARKER: To the best of my memory, this is correct.

NORBERG: Now, where did the four alternatives come from? Was this discussed in management committee, or...

PARKER: Well, this was discussed, of course, with our management, which would have been Engstrom, Norris,...

NORBERG: Let's see, would Meader still be there at that time, or was he gone?

PARKER: I think Meader was, it was around that time that Meader went. Meader was always a problem with us.

NORBERG: Yes, we talked about that last time, that's not a surprise. With these four alternatives, did this then raise the serious question of whether the company should be sold to someone else or not in order to provide the necessary capital for expansion?

PARKER: Well, it certainly points out that we looking at, say, we were given four options. Yes, I was very active in the thing. Remember now, that I'm the sole financial person in this, except I must include the bank who loaned us some money. But if I could see the picture, let's just say five or ten million, I don't recall now exactly what cycle the stock market was in, but whether it was in a favorable one where you could do this kind of financing, I certainly was looking at all possible methods for which we could become financed.

NORBERG: I haven't found any correspondence connected with any sort of interaction with banks or with financial people who might have loaned money to ERA though.

PARKER: No. Of course, I was borrowing money from First National of St. Paul, which the President was on my Board.

NORBERG: So this would all be done in conversation.

PARKER: This would all be done in conversation. There was no record keeping; there would be no reason for it. Plus, I was still a partner of my own banking firm, Auchincloss, Parker and Redpath... Undoubtedly, I don't recall now, but undoubtedly I was looking at the possibility of how we could set this thing up financially and have a public offering. I don't believe that had any real record to it, when I bought Meader's stock.

NORBERG: And that wasn't very many shares actually.

PARKER: But that was a personal loan; it didn't have anything to do with the company.

NORBERG: Yes. All right, last time you told me about the approach from Remington Rand. We talked a little about how that came about. I have since seen some more documents about it, and I'd like to ask you just a few questions about Remington Rand. The first one would be, what did you visualize as the gain from such a sale to Remington Rand? In the case of IBM, ERA would have been swallowed up. People would have been redistributed around IBM and that would be the end of ERA. But in fact, that didn't happen when ERA went to Remington Rand. Did you foresee that that was a likely possibility or not, that it would stay as an intact organization within Remington Rand?

PARKER: Well, at the time, it's value was to keep everybody together and keep this as an entity that was to be expanded.

NORBERG: Why?

PARKER: Well, as a group, they had been able to put together these... Well, I don't quite know how to express it, but accomplishments to meet whatever the problem was at that time.

NORBERG: So a very project oriented company.

PARKER: Yes, yes, yes. I foresaw, and I don't mean I saw something nobody else saw, because I think everybody in this field at that time saw an opening here that nobody knew what the eventualities might be. But it certainly had great possibilities. And just projecting out like this little report there, if we were going to, they were really going to develop these high-speed devices for use industry-wide, commercially and so forth, we couldn't depend on just government contracts and what little we got out of those that we could use, but we had to do our own financing. And how to do that financing was a problem. In their article they say that I lived through the era of the beginning of the aviation industry, which I did, both in airlines and manufacturing. I can remember testifying before the Civil Aeronautics Board that we were proposing to do public financing for a small airline - and at that time it was Canadian Colonial Airways running from New York to Montreal - and I said it was just a forerunner of something that was going to expand maybe half a dozen times. Well, missed my forecast by a factor of a thousand, maybe, but I had nothing definite to go on. I just knew that we needed a source of capital and when Remington-Rand came into the picture and made this offer they were already in the business themselves, they were trying hard, but they recognized we as a group had something that probably, I don't know where it said, but in some of these records somewhere it shows that by 1948, that ERA probably had put together more high-speed computing devices systems than everybody else in the country put together. Of course, this was under very, under very secret contracts, and so forth.

NORBERG: I would guess a little later than that, say 1950. 1948 would be a little too early.

PARKER: Well, by 1948 we recognized that we had something. And in here you'll find a letter from General Marshal,

the Secretary of Defense, thanking us for what we had done. This was about 1948. We produced, you see.

NORBERG: From the Remington-Rand side, what did they expect they were getting?

PARKER: Well, again, they had access to all the information the government had and apparently they were giving us a very good recommendation. And it was necessary, if possible, to keep us together. The reason ERA was founded to start with, of course, was to keep this group together and this just kept on.

NORBERG: I want to switch then, to Remington-Rand. What did Remington-Rand want you to do when you purchased the company, you personally?

PARKER: Well, to begin with, I remained as President of ERA before... It became a wholly-owned subsidiary first, and about six months later, it became a division. And I remained as president of ERA during that period, knowing that down the road that there was going to be a change. They asked me to come down to New York and set up a division to make this new technology available to business and industry. And this is where they called that division the UNIVAC division and this...

NORBERG: Oh, that's much later now. UNIVAC division is after Sperry purchases Remington-Rand.

PARKER: Oh, no.

NORBERG: Yes. I'm sorry, I have to disagree with you there. It's late '55. It was the ERA division first, and indeed, this is the period now, from '52, from the last board meeting of ERA - the date I have is August 19, 1952 - the last board meeting of ERA to the setting up of the UNIVAC division, which is late '55, to begin in '56, there's what's called the ERA division. And it's operating independently within Remington-Rand, and in competition with Eckert and Mauchly division and the Norwalk laboratories. And that's what I came to talk about today.

PARKER: Tell me again?

NORBERG: Yes.

TAPE 3/SIDE 2

NORBERG: I just asked you what the electronic computer department contained. And you were just about to...

PARKER: Well, as far as I was concerned, I was vice president of sales, and I've always considered it the UNIVAC division. The electronic computer department was independent, from a sales point of view, of Philadelphia, and of Norwalk, and of St. Paul. But I had with me in my department a representative from or representatives from each of these places. I had Erwin Tomash and Smith permanently assigned to me for ERA products, as I did people from Philadelphia for UNIVAC. Norwalk really supplied us practically nothing. But here is a list and you can see this includes all the products...

NORBERG: But we don't see that. What we see is the customer name and then where the location is and what sort of contact with Remington-Rand representatives there are, but it doesn't say what sort of product was being sold to them.

PARKER: Well, each time we made a presentation to a company, we would have a seminar and we would have representatives of each one of the divisions.

NORBERG: That looks like people from Philadelphia.

PARKER: Well, these people were with me in New York.

NORBERG: I see.

PARKER: These were the people that were assigned with me in New York.

NORBERG: How large, then, was the electronic computer department? Number of people?

PARKER: You saw the signatures on there?

NORBERG: Yes.

PARKER: That's the electronic computer department.

NORBERG: That's probably 45, 50 people.

PARKER: When it first started, there were 2 people, myself and my secretary. And then I brought up from Washington one of the principal sales people from the government division, Luther Harr. Then I brought up Dr. Mitchell from Philadelphia. I brought in, Bill Norris assigned me... I can't think of his first name at the moment, Smith, and then later on when we got the 1100 series, Erwin Tomash. So it was purely sales that I was in. Although we had, of course, constant contact and things with Philadelphia and with St. Paul. Particularly with Philadelphia, where it was business type of machines that we were placing in the industrial places, in business for instance. And they met our requirements when the customer needed something special, something in the way of a printer, all kinds of different things that we were developing. We were still developing.

NORBERG: Now were those...

PARKER: That gives you an idea of how extensive this business was. These were all being developed over this period of time over the period of three or four years. For instance, here's Herbert M. Mitchell, Jr. Here's a schedule of where we went and when.

NORBERG: An impressive schedule.

PARKER: What?

NORBERG: An impressive schedule.

PARKER: I never got home before 8:30 at night.

NORBERG: Did the separate divisions have sales organizations as well at that time? Was ERA trying to sell its own products, too?

PARKER: Yes. The way Remington-Rand was organized, they had their individual, I call them divisions, different cities across the country where they had a manager. And when we went into their area, we took them along with us. They were, in some cases, our introduction. And then we, as we put something... For instance, in Louisville, we got General Electric. There we got somebody from their organization to become a contact for us and the same thing when we put computers into the [U.S.] Steel Corporation in Pittsburgh or when we put them in other places than in the Steel Corporation and Metropolitan Life. We had these installations all around this country, the West Coast and so forth. This is primarily the business computer, now, the UNIVAC I.

NORBERG: Yes.

PARKER: Well, to my thinking, it's always been the UNIVAC division.

NORBERG: That's okay. We don't have a problem with terminology now that we've sorted it out.

PARKER: The electronic sales division. As I look back over this at the days that I spent with these... I went

everywhere you see a name on here.

NORBERG: There are many, many contacts here. It goes on for pages in these reports, and yet the number of UNIVAC systems sold and the number of 1101s and 1103s sold is relatively small. What sort of reception were you receiving at these companies?

PARKER: Well, you see, it was primarily, it was... Well, primarily it was business systems that we were putting in.

NORBERG: Well, putting in or trying to put in? That's a distinction that I'm trying to make.

PARKER: Well, we actually did. Just think of the installations that we had, I'm talking about...

NORBERG: How many?

PARKER: I suppose I've got a record here somewhere. I'd say... The major account was the Metropolitan Life; I think we had two or three there. Steel Corporation as I recall, we had three installations; General Electric, Westinghouse...

NORBERG: Various government groups...

PARKER: Hancock...

NORBERG: John Hancock, yes. Okay. So would you say 40 or 50?

PARKER: Yes.

NORBERG: I would have guessed 40.

PARKER: Something like that. But what you can see building up here where I was estimating that there might be as many as 500.

NORBERG: Exactly. That's the point.

PARKER: This is what I was selling all the time. And then I used to make speeches around the country saying that this was only just touching the ground level here where we're going. The day is going to come when our on-line systems - and here's ERA's background - when our on-line systems, this was the future development of this high-speed computing business.

NORBERG: Now, do you have copies of those talks? Just one would be enough.

PARKER: I tell you, I used to have a little card that I used to write little notes on about this big, but in general, this is it. There may be something in there, I don't know.

NORBERG: All right. The point that I was getting at is...

PARKER: Yes, you're right about this because here's from Stanford. Here's a 1954...

NORBERG: So after you were then in New York about two years, Remington-Rand management did not seem very happy with the results, according to that report there was not enough sales.

PARKER: Oh, no. Now this is just an interim report from Rumbles, who was the vice president of sales for the entire organization. He and I developed to be great friends, as a matter of fact. There was... See, this was a new business and there were a lot of people who didn't believe in it. And this, of course, caused my downfall that I called one of the great American tragedies is that when Sperry bought the business, the president of Sperry said he was never

going to put another cent into the development of the computer business. He didn't think it was necessary. And this is where Rem-Rand lost its lead with IBM and it took ten years for them to get back into business.

NORBERG: Is that why you left the company?

PARKER: That's why I left the company. I told them, I said I've made speeches all across this country about Remington-Rand and our staff and our ability, that we were always going to continue to, you know, keep pace with the advancement of the technology. I said I just can't, now going back that we're not going to do any of these new things, I said, I just can't. So I resigned. And then I asked for a hearing before the board, which Harvey Vickers, President of Sperry didn't grant me, but I did appear before part of the executive committee. At this time, I brought Harr and Mitchell and we made estimates of business down the road over the next few years. Then when they put in Bill Norris, I told them it was... I believed that they couldn't find a finer man in every respect to do this. But if he had to work under the conditions under which I now had to work, and I didn't give him two years to stay with the company. Bill only stayed about eight months. That's the answer to my answer.

NORBERG: Well, I want to go back to this list of 500 prospects again and to ask you how did these presentations go when you went to these companies? Was there a standard format that was used?

PARKER: Well, depending on what the company was, and so forth, yes, fairly so. I usually just told them who I was and that I had made my staff with me -that Dr. Mitchell was one of the great pioneers in the field of how to use these devices, and that Mr. Harr had been with us since it started and could tell them how it was presently being used and then introduce either Erwin or Gordon, not Gordon Smith, he later came on, Smith...

NORBERG: Graham Smith. Was it Graham Smith?

PARKER: Graham, isn't it awful, it was Graham. And he would tell them about ERA. It was just a general presentation to... And we did this to, well, you saw the list, I just can't tell you how many. And then at this time the

organization, the whole Remington-Rand organization, knew about us and they'd make a contact with some company in their area and they'd ask us to come to make presentations. If we thought it was a probable customer, why we went and made this presentation.

NORBERG: But there was some resistance from the local tabulating equipment offices, was there not?

PARKER: Well, within the management there were people who just didn't believe. People like the president himself, who said that he didn't see any future in the computer business. As an example, the president or the vice president whatever it was of the shaver division - that used to be a very profitable unit of the company - he didn't want to see any money spent for development work, research and development in this field. At one meeting we had in front of the management, probably not the board but management, he made the statement that if we ever sold five of these machines that he would have a statue built for me in the front yard.

NORBERG: Needless to say, they didn't make it.

PARKER: That's right.

NORBERG: What sort of situation did you find when you arrived in New York? What were the Remington-Rand offices like? Who was around, what was the structure, and so on?

PARKER: Well, I was immediately taken in and introduced to the manager of the New York office. Apparently the manager of the real estate division had just passed on and his office was vacant and his secretary was without an assignment, so I was taken down and introduced to Miss Quinn and they said this is going to be my secretary and this is going to be my office. And that's when we started.

NORBERG: And who else was around these quarters? Was that where the executive division was essentially?

PARKER: Well, in New York, yes. The treasurer's office and the general counsel's office, and that type of management was in New York, in this very large building. Eventually, we grew from that one office to I think we had one floor in which we had an UNIVAC system where we did work for hire. Also used it as a demonstrator for people we were negotiating with. We eventually ended up with, I think, three floors. We ran a school for our customers. We had one of two weeks which was an introductory course to computers, which was for, you know, sort of senior management of companies. And then we had a programming course for three months. Then we had a maintenance course for six months. We had to teach everybody, because there were no pilots available at the time. And this, I think, was one of our real contributions to the development of the business. Not just for our own company, but for others as well. It's too bad I didn't have a chance last night, it was too late for me to review these papers.

NORBERG: Continue with these questions about the New York offices. Who among the Remington-Rand people did you have direct contact with on a regular basis?

PARKER: Well, on a regular basis I had contact with Art Rumbles, the fellow who I wrote that thing for about the payments. I had daily contact with him. He and I wrote hundreds of memorandum back and forth to each other. When I needed anything like additional space and I was getting somebody else new in, I would deal with Al Sears, who was vice president in charge of the New York area, New York division. Oh, and I had very close relationships with the financial people. See, these were million dollar installations. Also, most all of these things I personally dealt with the senior people in the companies with whom we were dealing. I had almost unlimited contact with General MacArthur, who was our chairman, who I arranged to take I can't tell you how many representatives of different companies throughout the country to his apartment in New York, where they were able to meet with him and he expressed ideas and views about the future of the business, I mean the future of the electronic computer business...

NORBERG: Did he have any such views?

PARKER: Yes, oh yes. He saw a tremendous future. And he was of tremendous assistance, as far as I was concerned, in giving credibility to what we were doing, attempting to do.

NORBERG: With whom? Anyone you brought in or...

PARKER: Anybody I brought in. I brought in, I know many people who were, you know, rather critical about him, not knowing him. Never any of them ever came out that didn't in some way claim that this was one of the great days to have met this man.

NORBERG: Would you use MacArthur's presence for a reluctant potential customer or was this a general thing that would happen, if you pardon the pun?

PARKER: Well, depending on the company. Let's say the Steel Corporation, for instance. They heard me say what the company was willing to do in backing them up and so forth, but to have the company chairman say it was an entirely different picture.

NORBERG: Why use the chairman? Why not use someone else like the president of the company or one of the other high-level executives?

PARKER: Well, I did use Jim Rand at times, oh yes, as president, but I was saying the top people liked to have met with General MacArthur.

NORBERG: So there would be some sort of an over...

PARKER: Very impressive. I must tell you this, a great apartment of his and sometimes Mrs. MacArthur made it depending on the group of people. And she'd take the people around and show them these mementoes that he had gathered all around the world, you know. It was dramatic the way he would come in. His aide would come in first and, you know, everybody would be around the room somewhere and he'd walk right over to me the first thing in the morning and shake hands with me and ask me about my wife to show that, you know, this was a personal

relationship, which, fortunately, it was. This goes way back to his mother and my wife's grandmother were intimate friends here in Washington. When he was chief of staff, my senior partner in my banking firm, G.M.P. Murphy and Co., were classmates and they used to come down and they used to use our apartment when they had their private visits when he was chief of staff here. So this goes way back when I had this relationship with him, and I must say, he was magnificent.

NORBERG: The electronic computer sales division, which I think was the title on those documents, how did this fit with other sales divisions? Were there several more? Not in electronic computers, obviously, but other kinds of sales divisions?

PARKER: Well, each of these headquarters, for instance, let's say in Detroit, they had all the products of Remington-Rand under their jurisdiction. Remington-Rand had all kinds of things, you know, office equipment, shaver division. We were the exception, where we dealt directly with contracting with our... Again, I had very close connections with the legal division, the general counsel was in the same building.

NORBERG: This was McNamara?

PARKER: Right. Frank McNamara was general counsel. And then he had two very competent men under him, who also worked with us.

NORBERG: Who were they?

PARKER: I thought you were going to ask me that.

NORBERG: Elgroth was one of them, wasn't he?

PARKER: George Elgroth, yes. He was particularly in patents. Oh dear... another lawyer - a nice little man.

NORBERG: It's all right.

PARKER: It will come to me in just a bit.

NORBERG: So you had all these sales divisions that were running simultaneously. Do you recall anything about the relative revenue among those? What I'm trying to do is get an impression of where electronic sales division fits with respect to the tabulator division, the shaver division, the arms division, and so on.

PARKER: I don't know that I have a break down. I may have somewhere in these papers...

NORBERG: But you don't remember it at the time.

PARKER: No, it was so long ago I just don't remember.

NORBERG: Was your sales division involved in any way with either designs, R&D, what I mean by that is, in learning things in the field, when you people were out giving your presentations and say Metropolitan Life would say, "Can you do this or that?" Would you people then go back to...

PARKER: Oh yes. Oh by all means. Oh yes.

NORBERG: Do you remember any specific examples of that?

PARKER: Well, let's take the example of General Electric. They weren't satisfied with the performance for speed of printing. And so they brought this back to us. I actually took their representative down to Philadelphia and talked to Eckert and other engineers about what they wanted and so forth. They assisted us in the design and development of a new printer. And yes there were lots of occasions where different customers wanted specific things that we took to

the engineers and I guess in some cases to Norwalk. But it was a very good working relationship between us and the laboratories.

NORBERG: How about between the various laboratories themselves? I'm speaking specifically of Philadelphia and St. Paul.

PARKER: Well, I think the best answer to that is the UNIVAC II, which was a product of a cooperation between St. Paul and Philadelphia. Primarily, I give credit for the development of UNIVAC II to St. Paul.

NORBERG: Why?

PARKER: What?

NORBERG: Why?

PARKER: I'm talking about engineering wise and the development, that's where it was done. Because this was a switch-over from the type of memory they'd used in UNIVAC I and solid state and...

NORBERG: Wasn't there some friction between those two divisions, though?

PARKER: I don't really think so. Do you by any chance, do you know Eckert?

NORBERG: I've met the man several times. I wouldn't say I know him.

PARKER: There's just no way that anybody could deal consistently with him without having some friction, but nothing, nothing that I took seriously.

NORBERG: Well, let's take some examples. I'm aware that when meetings with management above the divisions, I don't know how high up, would be held, and let's say, ERA people like Norris would be making a presentation of potential products, Eckert would be constantly sniping about that's not the way to do it or our product here from Philadelphia would do a better job than that. I understand from others that those things happened, but I don't know anyone who witnessed it.

PARKER: I don't either. I've heard him, you know, express himself. He's a very unusual man. Very unusual.

NORBERG: In what sense was he unusual?

PARKER: Well, for instance, once upon a time I invited him to come to a meeting I was having with the Metropolitan Life Insurance Company in which I had the senior people, I had the chairman, the president, several officers. The meeting room we were in I guess was adjacent to one of the UNIVAC installations. In any event, he came in and I introduced...

NORBERG: Excuse me, Mr. Parker...

TAPE 4/SIDE 1

NORBERG: I'm sorry, go ahead. Eckert came in...

PARKER: And he talked about the future. And he made, as the president told me afterwards, he said he sounded like he made everything that he had obsolete. Why did they already have this when what Pres was proposing was going to be so much better. And my answer to that was you had to use the things that you had today so you can use better things tomorrow. But this was typical. He was primarily a developer, an engineer. Not a salesman.

NORBERG: Well, how did you get around this problem? Here he is essentially downgrading the equipment you're

trying to sell to a major customer.

PARKER: Well, I just said a moment ago, I just told them that you had to use what's available today in order to have a better product tomorrow. And they understood it. They understood it. It was doing a wonderful job for them.

NORBERG: Does that suggest that the next time you didn't bring Eckert?

PARKER: No, no. This was really a meeting that I had trying to tell them about what we were doing, that we were keeping abreast of the advancement of the art See, the type of equipment we were then using as compared to today was really archaic when you think of...

NORBERG: Oh yes. Oh yes.

PARKER: ...but don't forget some of the things that they did. I'll give you an example of John Hancock, where each of these companies, of course, always had people that they had to sell whether it was before they would give the authorization to acquire this very high priced equipment. And say, in John Hancock they had this installation and they were talking about the second one and there were people on their board that were questioning the fact what it's value was. But it just so happens that they had a fire at some division type company; I don't remember where - if I knew. But this fire destroyed all the records for this particular area wherever this file was. Well, within 24 hours the computer had recreated every record in some thousands of items, and this settled right then and there the value of the computer as far as the John Hancock was concerned, because they went on and bought UNIVAC II after this.

NORBERG: Now wasn't that after the work with Metropolitan Life, which caused a development of a card-to-tape converter to be made by Philadelphia in order to be able to satisfy the Metropolitan people that all of this information on cards was not going to be lost.

PARKER: I don't know. I don't know whether that... All I'm saying is that this was an example of how we were able to

save... Oh sure, we've got new equipment down the line here, but if you're ever going to use it you've got to use what we've got today to do what we're doing. And this was my sales pitch.

NORBERG: You also have to have a connection with the past, because you've got all this information that's going to be useful in actuarial tables and whatever. Okay. Now that gives us a couple of examples about the R&D or designing area. How about production? Was sales involved in any way in production? That is, in the actual way in which the machinery should be produced in order to be usable in one way or another when it got to the customer.

PARKER: I don't know directly, but indirectly I think perhaps that there was an influence, because also, in these early installations, in most cases we allowed with the equipment that company acquiring that equipment to also take one of our qualified operating people. And when they got that into their particular operation, then they would feed back that information to engineering and to the development of whatever it was. And I think this is just part of the growth of the... Constantly, consistently. So indirectly, I'd say yes. Directly there was no way you could just order someone to mark this down and...

NORBERG: But I would suggest there wasn't very much involvement on the following grounds. In talking to Bill Drake about his activities during this same period...

PARKER: Bill Drake was my man in Louisville.

NORBERG: Yes, that's exactly the case I want to bring up. As I understand it, Bill was sent there because there were problems with the installation, presumably. The equipment was late, first of all, and presumably when it arrived, they couldn't get it to function properly. I don't recall why that was the case, but in any case, they couldn't get it to function properly. But the principal problem seemed to be that all the equipment necessary didn't show up at the same time. And when Bill went down to Louisville, he found that things like the printer had not come, so you couldn't get anything in and out of the machine. He claims that he went back to Philadelphia to see where the rest of the... He couldn't get them to send it, so he decided to go back and see where it was. And what he found, he claims,

is that essentially this thing was spread out on a table maybe three times the size of this dining room table and wasn't even a functioning unit at that point. Do you remember any problems in the case of Louisville? I understand that General Electric almost canceled the contract?

PARKER: They had a man named Roddy Osborne at General Electric, who was probably, of all the customers that we then had, he was probably as knowledgeable as anybody that we'd done business with and, as a matter of fact, I always considered Roddy as being a great help in the development of the UNIVAC. I spoke about this printer earlier. I don't recall this much of a problem with Bill coming back, but as I recall it I brought Roddy Osborne back there to the engineer's at one time.

NORBERG: Didn't Drake come and complain to you about the fact that this damn printer wasn't even available?

PARKER: He may have. I wanted to tell you there was everything happening every day.

NORBERG: I don't see a pattern here and I'm beginning to be concerned about the lack of a pattern. The pattern ought to be one of the following, I would think. Either your concerns were with sales specifically and with use of people like MacArthur or whatever in trying to convince the customer to buy the device. But once the contract is made then it goes to someone else and therefore, Drake has to worry about it or Tomash has to worry about it or Mitchell has to worry about it and so on. That's one pattern. Another pattern would be that not only did you see to the sales, but you also made damn sure the product was delivered and that everybody was happy with it. That's another possible pattern, which would mean that you wouldn't have as much time for the MacArthur side of this because you had too many other details to take care of. But what I see is a fluctuation between those two. I don't see a determined approach falling out of the examples that you're using.

PARKER: Well, I don't quite follow you. I don't quite follow what you're getting at.

NORBERG: Well, let me put a blunt question to you then. When you came to the New York offices, I would guess

that you and your staff did some planning about what you were going to do, a list of prospects was developed, and then contacts were attempted. If that's true, then you would spend a good deal of your time going to each contact and trying to sell them a device. Did that procedure continue for the succeeding four years? From '52 to '56? Was it the same type of sales plan basically over that entire period, or did the plan change?

PARKER: I don't think the plan changed. The earliest sales installations, of course, were - I don't quite know how to express this. It wasn't like that we had a product already developed that was here, and it was here and we were going to guarantee it for a year, two years, six months or whatever number it was. This was a different type of thing. The customer had to develop the knowledge of what the equipment could do, what they could use it for themselves. It was a working relationship from the time it was installed, continuously. Never just signed off, this is yours, you take care of it. It was always our responsibility to, the company's responsibility, to work with the customer. So I don't think there was any change in any plan. Now there were hardships that developed like the delay in this printer from General Electric. But by and large, I don't think there was any regular problem happening. I think each one was an individual circumstance.

NORBERG: Were sales difficult to make? Did it take many visits to make a sale?

PARKER: Well, it greatly depended on the customers ability and their own knowledge. I might turn this around and say I don't think there were many sales made, that it was the customer that was making the purchase. They wanted to get into the business. It wasn't the fact that we made a better presentation or gave them a better lunch or anything of the sort. It wasn't that at all. It was the fact as to whether or not they themselves could use the equipment.

NORBERG: What then would be the determining factors in their decision? Would it be whether or not you could accommodate the problem that they saw as their own?

PARKER: Between what they calculated and what our people could tell them, yes. It was a constantly changing world, too.

NORBERG: In what sense?

PARKER: Well, things were being developed. I mean there were more and more and then there were more and more usages that the customer was developing himself where he could use the equipment. Just as this thing has evolved down here to the point where today we're down to a great revolution that has happened to us. But it didn't come about because someone was able, a good salesman was able to sell, but because the customer had the need for it. It was like the whole start of this thing the ERA. It was the need for being able to calculate enough things rapidly enough to solve some of our national problems that put us together to start with. And so here we are we're still going down the line and we're now talking about things that I have no comprehension of.

NORBERG: A lot of us don't. Was Remington-Rand selling these machines or leasing them?

PARKER: Both. Let me see, now, don't blame me quickly on that. I think we only sold...

NORBERG: Okay. How were prices determined then?

PARKER: Well, we went through all kinds of gymnastics with figures trying to establish what price to charge, you know. It certainly wasn't scientific.

NORBERG: Who was involved in setting the price?

PARKER: Primarily under Arthur Rumbles, who was a senior vice president of sales. Well, we used all of our figures of every nature and tried to estimate what the R&D was. It was a very inexact science. And then of course, it was also I think somewhat influenced by what the competitors could do, too.

NORBERG: Were you watching the competitors rather carefully at the time?

PARKER: Well, I'm sure the organization was. I wasn't personally doing it. I was certainly cognizant of what was going on. We had lots of industry meetings, where IBM and ourselves and others, you know, made presentations and we were pretty well aware of what each one was doing and what they were saying that they had and what they were offering and such.

NORBERG: During the sales seminars that were given to these companies, were comparisons made among machines of competitors as well as your own?

PARKER: I assume that they were. I assume that the prospective buyer was making them. I don't recall our having something to say like Buick versus Studebaker and so forth.

NORBERG: Because I do recall documents in the files where assessments were made; whether that information is used publicly or not is what I'm trying to ascertain.

PARKER: Well, I think each company had a sales sheet as to what their equipment was being priced at.

NORBERG: No, I'm asking actually a different question here. I've seen some documents about the performability, performance characteristics among machines. I wasn't thinking of prices. Performance characteristics where the 701 was compared with the 1101, and the 650 was compared with the UNIVAC I, I think, in terms of its performance characteristics. But I have no idea whether any of that was used by the company to sell either UNIVACs or the 1100 series.

PARKER: As far as I was concerned we never had.

NORBERG: You did not. So you didn't make a policy in downgrading the other person's equipment.

PARKER: No.

NORBERG: Did Remington-Rand attempt to use your military or other business connections to sell these machines?
Or any machines for that matter?

PARKER: Did they make...

NORBERG: Remember how useful those connections were with ERA, when you could walk into an Admiral's office and sit down and discuss products or services to be performed and so on and had a very good working relationship with those people. Was any of that exploited by Remington-Rand?

PARKER: I don't know. I know during my lifetime I've had a lot of connections with a lot of people. I lived here in Washington. There's almost no company that I dealt with that I didn't have some officer or some member of the company here in Washington which I've known personally. As far as government was concerned, I knew a great many people. And I suppose the fact that I knew these people may have had some beneficial effect that at least gave a pleasant relationship, working relationship. I don't know quite how else to use that. I don't think anybody ever tried to sell any of my contacts, I don't understand.

NORBERG: I won't pursue that. But instead, let's return to the ERA-IBM agreement, in which there were quite a number of patents transferred from ERA to IBM under that agreement, something like a half dozen that had been developed during the course of the contract done with IBM. Did Remington-Rand know about that agreement when they purchased the company, or did they only find out about it afterwards?

PARKER: As far as I know they knew about it. Surely they must have looked at it.

NORBERG: Well, it came as a bit of a surprise to them after the fact, though. They did an analysis of the patents and the claims and then they tried to get the agreement abrogated. Not abrogated, that's wrong. They tried to settle the

agreement to finish any possible further necessity to transfer patents from the ERA division to IBM. And that came up very soon afterwards. And there was a settlement of \$150,000.

PARKER: I've forgotten now. But my understanding is that we entered into this cross-licensing agreement with IBM, which included all of our then patents, right?

NORBERG: Right. But some of those patents were even assigned to IBM. Those developed specifically under the agreement. Okay. I don't want to pressure you if you don't remember, but it was essentially settled in that way. Okay. To bring this to a bit of a close for the moment, when did you first learn about the possible sale to Sperry of Remington-Rand?

PARKER: The sale of Remington-Rand to Sperry? Oh, I guess the day that it was announced publicly.

NORBERG: So you didn't have anything to do with the determination or evaluation or anything like that.

PARKER: No, I didn't.

NORBERG: Now there's a document that says analysis of rental income.

PARKER: This is 1955.

NORBERG: Yes. Which suggests that at least some units were being rented as opposed to being sold.

PARKER: Quite right. Later on I became involved in two other companies in which we had this problem of whether we sold or we rented, and I've...

NORBERG: Okay. Such documents commonly have useful information about who was buying?

PARKER: As I say, unfortunately I have...

NORBERG: It's interesting most of this seems to be... Yes, this is the Eckert-Mauchly division.

PARKER: That is the Eckert-Mauchly division. [Pause.]

NORBERG: What can you tell me about the formation of Atlantic Research?

PARKER: Well, this was a... I should really look up and give you some real details. As I said, we were under contract to the Navy, but it was under such restricted conditions that they encouraged us to take on other contracts if we could. So one of the things that came up was a contract to discover how to measure the effects of large explosions in solids. And we got this group through Jim Wakelin... Do you know Dr. Wakelin?

NORBERG: Yes. I had a meeting with him last time I was in town.

PARKER: We... I'll have to find some way to give you the names of the people. We took on this little group of chemists and we set up this program and we set off explosions of 120,000 pounds of TNT in various media, solids, down in the desert in Utah. We blew up the top of a mountain in New Mexico and this was... And through this contract we researched all the current information on measurements of what happened in explosions of solids. We did it in sand and granite and limestone. In any event, the purpose of all this, of course, was to measure what the atomic bomb was doing. And when this contract was completed, we had no further... There was no way that we could bring any of this business into the electronic computer business and so they formed this little company called at that time Atlantic Research. And they left ERA and went into Atlantic Research, which today has become a very fine company as you may know. And one of their principals, the basis of their financing, was that they went to the Riggs Bank for a loan for \$25,000 and the loan officer Corcoran Tom called me on the phone and said they'd given him my name as a reference and I recommended they make the loan. And I told them that I would guarantee the loan

myself. Well, that was all that was necessary and that was the formation of Atlantic Research. Now this was, I don't know whether this shows, I guess it shows on that chart that Atlantic Research came out of ERA.

NORBERG: I don't think so. We added it to it later on, but I don't think it came out of this. The problem being that that came up before the UNIVAC division was formed. Who were the principals involved again?

PARKER: That's what I was going to try to tell you, their names, and I just can't give it to you. In any event, this was very direct out of ERA and Jim Wakelin can give you all the information on it because he's the one that set it up for them.

NORBERG: Set up the project, you mean, in ERA?

PARKER: Well, that got us these people to come into ERA.

NORBERG: Because he didn't go into Atlantic Research. He went off to Princeton at that time.

PARKER: Jim, I believe, his background was as a chemical engineer.

NORBERG: Yes, that's correct. Let me ask you about one other person that I had in mind to ask you about and that's Arnold Ryden. He became some sort of consultant to Remington-Rand and I notice he's here on the list of officers in January of '52. Did Ryden work for you or for someone else?

PARKER: Let me see the name.

NORBERG: The next to the last one of the list.

PARKER: The assistant treasurer... Oh yes, sure he worked for us. Yes.

NORBERG: But you don't remember having any direct contact with him?

PARKER: Oh I remember him, yes, but I don't remember anything specific.

TAPE 4/SIDE 2

NORBERG: How was the price agreed upon when ERA was sold to Remington-Rand?

PARKER: Well, as you can see by these documents I just handed to you, the initial contact was made by an investment banking firm.

NORBERG: They were ready to pay \$3.50 per share of the stock.

PARKER: And then you see in a couple of other documents following here that I had a study made and for various reasons and came up with a price of \$10.00 per share. I didn't have a good rationalization for this price and this is what finally... I think I'm looking here now at the...

NORBERG: The reason I asked you the question is that there's a tale going around that the price was established on the basis of \$500 per engineer or something like that and multiplied out gave the sales price. Somehow that doesn't set too well with me. It doesn't seem like a business way to settle on a price.

END OF INTERVIEW