

An Interview with

GEORGE DICK

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Conducted by William Aspray

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Abstract

Dick describes the steps he took to return the company to profitability when he became executive vice president of the Council for Economic and Industrial Research (C-E-I-R), later the Corporation for Economic and Industrial Research, in 1962. He reviews the management of the company, its finances, and its marketing capabilities. In 1965 Dick left his position as vice president to take over the presidency of American Business Research Bureau and describes the radio ratings research firm and his management of it. Throughout the interview he discusses his relationship with other C-E-I-R executives including Herbert W. Robinson, Maurice G. Kendall, Jack Moshman, Meade Camp, and Robert Holland.

GEORGE DICK INTERVIEW

DATE: 19 February 1988

INTERVIEWER: William Aspray

LOCATION: Arlington, VA

DICK: I appreciate the opportunity to talk about some of my experiences in the information processing industry. They were always challenging and interesting, even though at times frustrating because it is always difficult to change a corporate culture or to agree with all of the objectives of a given entrepreneur. Have you interviewed Dr. Robinson, Chairman of C-E-I-R?

ASPRAY: One of my colleagues already has.

DICK: That would be interesting to hear what he had to say. The good doctor and I were not always in agreement on how to build the business.

ASPRAY: I can understand that.

DICK: He probably made that clear to your colleague, I don't know. Dr. Robinson had come to this country from England as a hard working statistician with a solid reputation as Winston Churchill's "body count" man and made a breakthrough in determining enemy strength. I wouldn't want to detract from that. He started something called C-E-I-R with some very bright young people, of whom Jack Moshman was one. He was in his late twenties at the time, I think, and also a statistician. I've forgotten just how they started C-E-I-R, but as they grew, they began to acquire companies and moved up to Farrigut Square in downtown Washington, DC by 1960 or '61. My real first hand knowledge of C-E-I-R came on election day of 1960 when Jack Moshman was hired by NBC to predict the election results. I was the new vice president of RCA Computers at the time with the job of getting RCA solidly into the commercial market and establishing some semblance of order. The 501 was already in the works, but we took off with the 301 and the 601. Behemoths, for those days, anyway, with all the transistors. Anyway, I was drafted from a nice, quiet, relaxing kind of activity in New England (the casualty insurance business where at American Mutual I was the

first marketing vice president in the industry) to come down to RCA. I judge you know about the RCA story.

ASPRAY: Yes.

DICK: A fiasco -- they really didn't know much about the commercial computer industry and resisted learning how to compute. They wanted to manufacture computers like TVs that you put together and ship them out without systems tests. So I got fired from there after the Chairman of the Board, John Burns, also got fired, because I was his boy. Once he was he was gone, Machiavelli theory works well.

So I was then asked in late 1962 by John Lehman of Lehman Brothers, who had put some money in C-E-I-R (over two million, as I remember) because it was going right down the drain very fast and he had the power to dictate action.

ASPRAY: Right. They'd gone public not too far back.

DICK: Yes. But it had to have been more than a year, maybe two years, because the stock had already gone up to 96, during which time Dr. Robinson used the inflated stock to buy about six companies -- from a two man operation to a very fine working operation more known as ARBITRON. It was called ARB -- American Research Bureau at that time. The company owners were delighted to get bought out at 10, 20, 40, 60, and so on, until it hit 96 and started on the way down again. In those days, in the early 1960s, it was a time in which the more you lost (and C-E-I-R was losing), the higher your stock went. Now that was literally true. It wasn't only C-E-I-R; it was anybody that had what you'd now call the high-tech label... new and different... everybody was agog about the whole anticipated growth situation.

I came in in November of 1962 -- not too much before President Kennedy was shot in Dallas. I was in the elevator (as everybody remembers where they were) going up to my office from lunch when the word came through. By the time I got on board C-E-I-R the stock was like six and a half. The reason I mention this is because with Dr. Robinson it was very important to know what the stock was; he build stock, not companies. Six and a half. Within about three weeks

I discovered that if I didn't do something I was in fat trouble because I hadn't been told everything. There was a \$600,000 negative cash flow. Well, I opened up the Washington commercial office for IBM in the early fifties here in Washington before I went to New York, and I had some very fine young men who had later moved out of IBM. They hadn't followed me in the insurance business; they had gone the Electrodata route and helped build a fine company. You know that story, I guess.

ASPRAY: Yes.

DICK: They pulled that together and it became the basis for Burroughs computers. They did a great job. So they were now off doing their thing. I had called three of them to help me work with RCA, to get that started right the IBM way. We did a lot of progressive things, but when you stir up the natives and try to do things the IBM way instead of the RCA way, they began to create roadblocks.

I said, "I need a financial man for C-E-I-R. I'm not a financial man." I can handle operating budgets. But when I've got a lot of other things to do, I like somebody else to make sure that I'm strengthened in the financial area. So I brought in Robert Holland -- Bob Holland -- who's now on the West Coast. As a matter of fact, I just spent a couple of days with Bob in San Diego. Bob was what I needed as a financial man -- a hard-hitting, bright, extremely capable, and no nonsense (including no nonsense from me). So I called Bob and I said, "I've got a big fat problem here." I outlined it to him and he said, "Yes, you have." And I said, "Will you come aboard?" He'd left Burroughs and was with Honeywell, if I'm not mistaken.

ASPRAY: That fits what I remember about Holland. I got Bob aboard within about three weeks. I said, "Bob, I've got enough problems here. You handle the financial aspects and you get us a payroll, and I'll see if I can get rid of some of the costs. We'll see if we can turn this darn thing around. By this time, the stock was now down around two and three-quarters. The word had gotten out.

ASPRAY: Can I break in...?

DICK: Anytime.

ASPRAY: Could you tell me something about the way that the business ran under Robinson's organization?

DICK: It didn't run. It tried to follow. Let me explain what I mean by that. Dr. Robinson realized that he had a good idea. As an entrepreneur he was excellent, but he was typical of the entrepreneurial type -- in his case, more typical. He'd go out and buy things and then promptly ignore them and go on to buy more allied operations. All he wanted to do was to make money and build the stock. The fact that he had to produce a product at a profit escaped him, but he knew he had to do it. Hopefully, it would be somebody else that did it, because he wasn't going to have the time to do it. He was out there selling and building "platforms in space", and dreams.

ASPRAY: Did he have somebody inside the company that was watching out for these things once they were acquired, working them into the system?

DICK: Well, technically, the management of the organization was supposed to be doing that, but you know the kind of organization it was. It was a computer service bureau. There were also several hundred professionals -- operations research people, systems, including operating, programmers, statisticians, economists, and other specialties. Unfortunately, while John Smith, the Controller, liked to rein them in on costs, costs were secondary to the mission each was on and sacred. Staff was also very competent. They were among the best available -- no question about that. But typically Dr. Robinson went out and bought all the good people before he had the business in hours to support the talent. That was his biggest mistake -- not only here, but in every country in which C-E-I-R operated. In Mexico City, Jose Nieto, one of their top statisticians in Mexico, promptly went out and hired over 30 people. He set up a nice office and a computer on the Reforma, and then just held a party. Whoopee, they were in business. "Would you mind sending us some money so we can do some work for you?" That was a little too typical. Really no feeling, no concern, no understanding of what it takes to run a business. As professionals, they were superb in most cases, which presented me with a problem which we just talked about.

I have now forgotten, frankly, all of the different divisions that we had; we had about six. The divisions were formed around the professional specialties mentioned above and funded, mostly, with government contracts. Some, however, did spec research because it was more interesting to them. ARB was the only division operation at a profit. One study was what the economic effect would be if we went to war with China. Trying to use linear programming as a scheduling tool for airlines was one computer time business. The head of programming systems, Orchard something.

ASPRAY: Orchard-Hays.

DICK: Yes, Orchard-Hays. You pulled that one out nicely. He did large programming systems. He was no different - and excellent professional, but no different than any other. He was always within three percent of completion. In those days, everyone didn't have all the answers. But Orchard-Hays had a good reputation, and worked hard at it, and was very unhappy when I had let him go. So, what I'm saying is, we had all of these various clusters of talent -- I couldn't say they weren't doing a good job. All I could say is I didn't have the money to pay them. So I had to let off about 400, many well qualified, which was real bad for a company that only had 600 to begin with. Yes, it was pretty drastic. Then there were those few who loved to threaten -- throw the gauntlet down. A new man coming in from the outside, and they thought they carried the big stick. My mission was to make the company profitable, and painful as it was, we just couldn't afford all that fine talent at that time. And I had Lehman's stick.

ASPRAY: Now, in terms of the overall management of the company at the time, where does Robinson fit in?

DICK: Dr. Robinson was Chairman and President. I came in as executive vice president. But I came in as executive vice president acting as CEO, because it was John Lehman's money. I tried not to overdo it, but there were times when I just had to tell Dr. Robinson, "We can't get there from here." But he was often wanting to move ahead and hype it. So I was technically running the company. The Board of Directors -- a couple of old friends, and an officer from Riggs National Bank who had gotten his tail in a wringer as the stocks fell. So he was a very "nervous Nellie" all

the time. Anytime I tried to do (this we'll talk about later)... something of a positive nature that would cost money (when we began to have a little), he was against it because he wanted it saved for profits. That helped to continue to hype the stock.

ASPRAY: When you first came into the company did you institute any new financial accounting controls, things of that sort, that weren't in place beforehand.

DICK: Well, we had a good accountant -- John Smith was his name. It took John some time to understand what we were trying to do, because he had kind of grown up with Dr. Robinson. So we had some trouble getting accounting information. There was no dishonesty with John at all. It just took him some time to understand the new breed that had come aboard -- the IBM type. There were some new reports, but nothing basic. There wasn't anything wrong basically with the accounting. Costs were just exceeding revenue.

ASPRAY: I see.

DICK: I have been at companies in which I had to set up new control systems but in this case it wasn't necessary. I may not have gotten the reports as fast as I wanted. When you're bleeding from the eyes you need to do something about it quickly. But as far as the content, John knew the business. Even though we were the largest and there weren't too many of them just like us at that point in time, I think he had a pretty good handle on it. That can be checked by a phone call to Bob Holland if you wanted to do that. Bob Holland had that responsibility.

ASPRAY: Okay.

DICK: Okay, I am now at the depths of the activity here, and if the stock goes down another quarter of a point Dr. Robinson is wiped out. Now I don't think he appreciated to the extent that we went all out to prevent that from happening. At that time, I didn't have anything against Dr. Robinson. I just thought he had been a typical scientist who knew his trade, but he didn't know much beyond that. And I still think that's the case, although I guess he's

worth a lot of money today, so who's to say who's right? So, we cut the costs of 400 people. I know we had about 600 at the time when I got there. Bob found the money to pay the people remaining. How do you imagine he did that? Dr. Robinson, figuring he'd capitalize everything, bought all the computers, eight large computers. So all we did was sell them. That was a brilliant idea. We shouldn't have bought them in the first place. But he figured, I guess, they would last a long time, and, you know that old argument. But in this case, if you're in a fast-moving industry you don't want to own computers. And he did. It broke his heart. But it's better breaking his heart than breaking his pocket book, because he would have cried harder for that, believe me. So, within a couple of months (early 1963) we had things stabilized and the stock was back up to six or so -- something like that because the Riggs Bank guy and another one from G.W.I. (Greater Washington Investors, a venture capital group) were beginning to breathe a little more easily, and so was John Lehman. So I did then what I have always done, I settled in to build a company. The first thing we did was to scrub the books. Since this was like late January, and the auditors hadn't gotten in there, it gave us a great opportunity to just clean the daylights out of all the miscellaneous "assets" that Robinson had accumulated. They had no value in our opinion, so we did some consolidation and we cleaned up the books.

ASPRAY: Did you sell off many things at the time?

DICK: No, there wasn't anything to sell of value, except ARB, and it was making money.

ASPRAY: I see.

DICK: I mean you had people. Good people, but not profit or cost trained.

ASPRAY: When you were acquiring, it was all personnel?

DICK: Yes, there were no products, except ARB. There were some on-going contracts. And I didn't acquire; that had stopped as of November 1962.

ASPRAY: Okay.

DICK: Well, we did have the computers, and we were doing work for clients -- payrolls and things like that -- bureau service, bureau stuff, which I had grown up with on IBM, so there was no problem with that. But these big, drawn-out computer studies, like linear programming for United Airlines -- that kind of thing -- just ground on and on and on. It sounded great but you never quite got there, that generated a lot of money for us, and made some nice leaps forward. As we did in other areas, we leaped forward in technology, but it wasn't anything like it is today, of course - it was all very new.

So we cleaned the books and started 1963, and my job was to consolidate. We moved people out, and what did we have left? It was obvious that we had some service centers -- some well-managed, some not -- each a sort of a fiefdom on its own. We had the ARB and we had these overseas companies. We had a company in Mexico that I've mentioned) Dr. Morris Kendall in London, and a couple of bright young Swedes who did have a product. It was the first I ever saw, anyway, of a highway design where the computer would draw out the road for you. You could see it -- the first bit of computer graphics that I had ever seen. Okay? Then it would give you the cut and fill on highway construction and bridge areas and what not. So it was a total engineering package -- and a very competent one. They used it on the Casa del Sol; it was the first Italian superhighway designed by computer. They were working on Spain, some in Belgium and France. Then we had a piece of the company in Rome that was sort of tied to Olivetti. We didn't own it; we had a joint arrangement with Olivetti. The British company had an office in Warsaw. What else did we have? France. France was a good one. What was his name...? Charles Salzmann -- a renowned operations research and statistician professional. That was the mode of Dr. Robinson. You didn't have any brains unless you were a statistician or an operations research person. That's why Moshman was there. Moshman has more than that, but that's what he was at that time -- a young statistician. Morris Kendall -- you know who Dr. Morris Kendall is, I assume.

ASPRAY: Yes.

DICK: Okay. I guess Morris is dead now some years ago. There was a pure genius -- a lovely guy; not the world's greatest manager, but certainly willing to listen, and brilliant in the areas in which he operated. He was a member of the Royal Statistical Society and had been President of the International Operations Research Society more than once, as I recall it. So, there was real talent there in Morris and Sandy (I've forgotten his last name), real talent in Sweden, real talent in Charles Salzmann (but his business was more data entry than anything else), but as he was beginning to build and moving on into the French telephone company and some of the larger organizations that needed the kind of help that we could provide for them. Well [a lot of C-E-I-R's work consisted of] studies, which is what all these professionals preferred -- the studies approach. Grinding out a repeatable saleable product was something that was very difficult for them to understand. It was boring, it was routine, but it was the thing that could keep them healthy. And they weren't very healthy. I don't know very many, if any, that were making any money. I know they weren't making any money when I came in -- not a single one of them. The only one that was making any money was ARB and they were underpricing their products in competition with A.C. Nielsen. Okay, so, does that bring you sort of up to date on that?

ASPRAY: Yes.

DICK: We can get into some more specific details if I can recall, and you have questions you want to ask. The first year, as I said, we scrubbed the books right after I got in there, but by the end of that first full year, we had turned it around where we made a million dollars. Now, making a million dollars after losing a million dollars in a business that by this time is maybe 18 million in size -- well, we decided the patient would live and we could go on and build the business. It was the largest of its type, and the types were beginning to proliferate. So we made a million, and, of course, then the stock began to climb. It went up to about 15 -- something like that.

Now, during that period Control Data calls. Bill Norris called, said he'd like to meet with Dr. Robinson, me, and Bob Holland. We went out to Minneapolis to talk to Bill Norris and his people. I was not for it, a buy out, that is, but Dr. Robinson was interested. I guess I was hooked on what we could build to.

ASPRAY: This was 1963 or 1964?

DICK: I think it was late 1963.

ASPRAY: Okay.

DICK: Probably late 1963. I really don't recall. They were convinced that we were on some kind of a roll, and they wanted to talk to us. Well, Dr. Robinson is always interested in talking to somebody so he can make some money off of it.

TAPE 1/SIDE 2

DICK: So, we said, "Well, okay, if you're serious about this we'll be glad to come out, but we're not really interested. The company is really not for sale." I mean, we just got off our deathbed and we wanted to see what we could do with it. So we went up, and Bill Norris met us. We had a nice luncheon, you know -- the usual crap. And then he turned the situation over to about three of his executives. Now that's where Bill made a mistake. Bill didn't spend enough time with us to really understand the difference between Dr. Robinson and George Dick and Bob Holland, because we geared to build a business. We had some stock options of consequence, and we were all computer people. We were excited about it, we figured that this was a whole new wave and we wanted to do it right. Bill's young turks had gotten in with Bill Norris with cheap stock, apparently. They had grown up in the business with him. And so they were wealthy young men and thought they had all the answers. The part that we didn't appreciate was their treatment of us with arrogance. We figured we had done a fair job ourselves. We just didn't happen to have been lucky enough to have been with Bill Norris during that particular period of time. They spent a lot of their time running us down and said, "We don't know whether we want you," and all that sort of thing, which is no way to sell anybody if you're trying to buy them. I got Robinson off to the side and said, "Robbie, this is a disaster. Let's not stay here. There's no need to. We don't need them. If they need us, it's up to them to convince us that they

need us, and then the price will be determined later." I said, "Let's get the hell out of here, because," (and this is where I could get to Robbie every time) "they are insulting you, sir." Well he began to get a little huffy about it too. We walked on Bill Norris and his fine young men. They were just too arrogant. Well, I'd grown up in IBM; don't tell me about arrogance. I'd been at the top (I'm quoting to myself now)... "You know, I've been at the top. I don't need this crap. I've been there -- done it a hell of a lot better than you've done it. We're just trying to do it again in a different way and have some fun while we're doing it, because we insist on having some fun while we're working -- [laughter] while we're beating our brains out." So we came back. And while we settled down, because at least somebody had been interested in him... settled down and tried to be as cooperative as we could in getting on with the business. In the meantime I travelled all over the United States. I was in every center every month and in Europe every three months, and Mexico. So I was beating my brains out while Bob Holland was neatening up the money pile a little bit.

ASPRAY: That is, you were going to the existing operations.

DICK: Yes, the existing operations. The only way to find out where your problems are right out at the field. You can't sit at the home office, which is what Robbie liked to do -- sit in the home office, or have them come in and present their story. You've got to go out and see the situation first hand. Where are the bodies? What is the work? Let me see the work. I like this kind of approach. We got all of the centers cleaned out, so that they were beginning to produce some profits, or at least cut out the losses. That was particularly true of Morris Kendall; he's no fool. We got some good contracts with British Petroleum and International Chemical, and did some great work, as a matter of fact, particularly in the transportation problem area (if you're familiar with that kind of stuff). Morris was superb at that. I had statistics 101, but Morris could explain to me what the problem was. I once asked him, the first time I really met him, because he hadn't come over during "my induction period". I met him in London and we went to the Ed Munder-Ross Club. Do you know Ed Munder-Ross? He was like the Guy Lombardo of the day, except his music was a little different. Well, as always, a lot of founders clubs were private. Whether it's a gambling club, of which Morris was a renowned expert on chance and was the expert witness whenever they had a problem with the gambling problem in England, or a social club, he had a membership. Anyway, we went there that night after I'd arrived and

spent some time at the office. Now he had many good people, and a few that weren't so good. That's all relative, you understand, because he had about the best there were in England at the time. We went to the club, and this was Morris' way of getting to know a stranger. We sat down and a delightful young lady comes up -- the hostess. He'd been there before and she said, "Doctor, would you like a couple of companions for dancing and dining and so on?" And he said, "No, tonight George and I are going to spend some time together." He ordered a bottle of Scotch and a martini -- *a* martini for me. But, son of a gun, it was a *very* big one [laugh]... to give you a feel for his sense of humor, a big one. He just about killed the bottle of Scotch and I got rid of my martini, and before we were done we were old buddies, not just, you know, slobbering old buddies; we were stone sober, because we were there from, like 8 o'clock in the evening until 2 o'clock in the morning talking about the business. It gave me a chance to get a quick fill, because it was like January or something --the first of the year -- a quick fill-in on what kind of darn business I was in. I asked him, "Look, how can I tell whether a guy's a genius or not?" I said, "We've got a bunch of brains around here." He didn't mean this in any deprecatory way; he just says, "If they can tell you so that you'll understand it, they're a genius." What he meant was, don't pay any attention to all the fog and the big words and the jargon that the pseudo-experts give you, and I took it that way. And, by God, he's pretty right. Jack Moshman can explain it to me. Some self-ordained experts can't. If they just snow you then they're not too sure about it themselves. I did that kind of thing at each one of our centers, trying to find out what kind of people we had, and we made some changes. There have been some spillouts of this. One of them was a chap by the name of Cullinane. Do you know Cullinane?

ASPRAY: Oh, John Cullinane, yes.

DICK: John Cullinane. John Cullinane was sales manager for our Boston center -- a young, good-looking Irishman -- and obviously an entrepreneur in his own right now. What he's going to do... getting out of the big systems and moving into something else. I only know now about what I read in *Business Week* in a lot of these things. And I don't read any of the technical journals. But John is one of those who passed my test. Another one who was on the periphery is Sam Wyly.

ASPRAY: Oh, yes.

DICK: We sold Sam his first computer.

ASPRAY: He's also on our board.

DICK: Oh, he is? Okay, fine. Well, he'll remember me and he knows Bob Holland exceedingly well. But anyway, he bought a little 1604. 1604; that's what rings a bell. I could be wrong. But anyway, it was the thing that Sam used to start University Computing.

ASPRAY: I see.

DICK: So we've had our tiptoes in history here. He's made a lot of money up and down and around. What I have here going into the first year is a much smaller group of very talented people who didn't understand what marketing was and realized that they had to make a profit; otherwise you couldn't have all this fun with all these goodies that you're buying, and with Bob Holland behind with a whip, to make sure that that took place from the financial point of view. It began to work. Jack Moshman himself had not had this kind of discipline from the marketing point of view -- the profit motive. You've got to have it. Dr. Robinson had the profit motive, but he really didn't know how to go about it.

ASPRAY: How did you instill this in these talented people?

DICK: One on one. I've always been curious all my life. I enjoyed the IBM experience starting from back in the days when we only had a keypunch, a sorter, and a tabulator back in 1939 when I joined IBM (which was, by the way, only a 39 million dollar company at that time). [laugh] So, you know, the days of Tom Watson, Sr. were days that we lived with. We lived with his dreams, and his encouragements, and his ability to sell. Now sure, he began to put on the direct sales hype as time went on. He had to influence, just like I tried to do with C-E-I-R, the IBM people. He was out there one-on-one. Sometime during that early period you and he were one on one and, you know, "Just what are

we doing here?" and, "Let's do it."

ASPRAY: It sounds to me that C-E-I-R was not a very highly structured hierarchical company.

DICK: It wasn't at the time. We always were pretty lean. I think I shared a secretary with Dr. Robinson for awhile, because I don't use secretaries much anyway. I use the telephone and get out and move around. So I'm confident that we were about as lean as you can get in an organization.

ASPRAY: So in particular, there weren't very many managers between you and these people who were running the projects, these technically oriented people.

DICK: No. Dr. Moshman was the guy, basically, in between for all professional activities. In the various centers, you'd have the center manager, but the center managers reported to me, but Jack was the staff on all professional jobs. There was no big loop in that. Going over to Europe, it was Morris Kendall, for example, or Charles Salzmann, and then people who were responsible for doing the job. We were not hierarchically organized just to have bodies, just to have managers. We had the minimum of managers because we needed the people to get the job done, not because we liked the structure. I was never for that and IBM wasn't either. I have just finished the article on the restructuring of IBM now, and I can see how they grew into that situation. But John Akers appears to have taken a bit and said, "Hey, we're just too big for that now, and we've got to do something different." Let's hope it works out for him. But I lived during the beginnings -- the beginnings -- of some bureaucracy in New York, but nothing like I'm sure it ended up -- from what people tell me who have stayed there, or were consultants to IBM.

Once I had gotten around to where I felt I knew the people that I was dealing with and had made some changes based upon not only my reading of them, but of any management change -- you make a decision. I moved some out and moved some in. Things began to perk up, and the various centers began to produce, and began to make some profit, and the first year we made a million dollars. But, as I said, not too much of that was from the centers as yet. That was more like 1964 that we began to benefit from centers. ARB was the only one, really, that was carrying its weight.

ASPRAY: Now was most of this money made by cost cutting or through new contracts in some new business, or just fulfilling on-going work and doing it more efficiently?

DICK: I brought in a young man by the name of Meade Camp, who became vice president of marketing. There had been an incumbent there, but he was one of those that threatened, you know, "If you don't let me do so-and-so, I'll quit." Those are always their last words. I put Meade in. He had been director of Product Planning at RCA, so his job was to get new business. He was a bright, young, imaginative guy. He had to do the same thing I did in depth -- find out what kind of business we were in. We found we were in a lot of businesses. We had a lot of potential products. We were one business, but we had a lot of different products. The products evolved around the talents of the individuals, so we grouped them. We did begin to hustle statistical programs, operations research, which took some sophisticated selling, because operations research is not exciting except to the knowledgeable.

ASPRAY: Not well understood or known.

DICK: Not well understood at all at that time. That's how we got into linear programming for United Airlines, for scheduling.

ASPRAY: They hadn't been a customer beforehand?

DICK: I don't think so. Maybe they had. I don't think so. I think that was generated out of the New York office. Yes, we had to package things, because, otherwise, you just go out as a consultant and, "What do you do?" "I consult." You know, "Well, how much consulting can I buy?" "Well, what are we buying?" That old story. We began to narrow down our fields. We cut out some that were too ephemeral. They were just too far away. We couldn't afford to be in basic research, like, for example, artificial intelligence. Had that been in line then it would have been out, because we didn't have the money to spend on that kind of thing. We weren't that far along anyway. But that's the equivalent of markets we avoided.

ASPRAY: Now, these decisions would have been made by you and this marketing vice president...

DICK: Well, when it got down to that, yes.

ASPRAY: And who else would have been involved in these kinds of decisions?

DICK: Holland would be involved in them from the financial impact point of view.

ASPRAY: Would Robinson also?

DICK: We tried very hard to get him involved, yes. We tried to protect Robbie from some of the blunt decisions that we had to make, because he had... Well, he got all these fine people aboard and felt personally responsible.

ASPRAY: Right.

DICK: We were the bad guys, but Robbie himself was a bad guy in the sense that he wanted to keep everything like it was, and you just don't keep everything like it was. There was beginning to be the kind of clash that you'd expect. The John Scully and the Steven Jobs situation at Apple computer... Jobs couldn't get there from here. Scully knew it, and Jobs didn't want to admit it. Just keep going on and inventing. But you've got to put a product out sometime, and that's where I came in. I added that kind of discipline to it, plus the ability to persuade and convince guys that this is the route they've got to go. If they like what they see, then hang with us and we'll get there from here. And we did, and we would have gotten a lot further. So things were moving along. By early 1964, things were going along very nicely. We weren't making a lot of money. We'd added to it at some point, but we'd consolidated. We were a business. We weren't a business up till then. *Really*, we weren't a business up till then.

ASPRAY: How would contracts have been developed in the days before you came on?

DICK: This is why, I think, when we talk about the records, I never worried about them, because we had some very fine people. There was a gal, a lawyer, by the name of Elizabeth Freret. She developed all the contracts. And she was superb. She ended up with Porter. Arnold Porter? I think it was Arnold Porter. A very talented gal. She was going to be sure that we were all right with the IRS, and we were all right with anybody that had a contract problem. We just let Betty handle it. She did a great job -- saved Robbie's tail many times before I got there. I know because she told me about them; how she had to sort of... pull it out of the fire before we got any further trouble. So, between Betty Freret and John Smith on the accounting side, we're pretty well buttoned up. I wasn't as close to them on a day-to-day basis on the financial side as Bob Holland was, because he was vice president of finance.

ASPRAY: And Robinson would have been the one who would have developed the leads in the first place in the days before you came on?

DICK: No, I suspect Moshman. Maybe Robbie... some high-level selling, maybe here and there. But he was not a guy that could go out and knock on doors.

ASPRAY: I see. So...

DICK: Robbie didn't like it. With the Churchillian background, which prestige he had justifiably gained, he was used to sitting there and pontificating for hours on end. The board meeting would last eight to ten hours when a good two hour job would suffice (my opinion, of course). No, he was not a strong marketer in my opinion. He didn't like it.

ASPRAY: Oh, yes.

DICK: He'd be out selling some Leontiev (?) theory -- how you could do such and such, or predict a great wave, or whatever, on the stock market. And that would be exciting to him, because that gets you involved in the statistical aspect, which he knows best. But as far as trying to make any money out of it, he wanted to make money out of

everything, but not everything had an immediate money-making potential. A lot of it was basic research as you recall back in those days. It's available for you to find out.

ASPRAY: Was there somebody in the company who you would say was making these marketing contacts?

DICK: Oh, yes. Meade Camp and his sales organization, including Warren Burton, a fine computer marketer.

ASPRAY: Had been doing this. Okay.

DICK: Oh, you mean beforehand.

ASPRAY: Yes, beforehand.

DICK: Yes, there was a fellow there. Weak, not strong. You had to be one of two things with Dr. Robinson -- very talented so that he respected you, or very strong and capable in other ways. So all these people were scared of Dr. Robinson. The marketers were not top caliber people. I don't mean to run them down. They did all right, but they grew up in the period of the stock going to 96 and they thought this was all their doing, you see. Actually, they hadn't done a darn thing, except help lose money. The marketing organization was not strong enough to dictate to the Moshmans and the professionals what the real market was. So marketing had no real control. They would run service bureau, payrolls, and sales analysis and things like that, but not the kind of things that Robinson wanted. He really didn't want the service bureau, but he had to have it because he needed the computers for these bigger things.

ASPRAY: Yes.

DICK: We had all these computers out there, eight centers, if I remember correctly. Big IBMs! They're sitting there; we can make some money. So we put them to work. We did a lot of routine work.

ASPRAY: I interrupted your story before.

DICK: I'm trying to think now when to approach the ARB story. Probably about now. Jim Siler, who founded ARB, and a group of five young men had built ARB in Beltsville. They had built it under difficulty. They had a big A.C. Nielsen sitting up there. It had the beginnings of a reputation. So Jim Siler, instead of fighting the national picture, went after the local market, the station market. And he was absolutely right in the sense of picking out a niche for himself. That's the thing he should have done, and he did it very well. I only had one argument with Jim and he was wrong, as I'll explain why he was wrong. But Jim and his young men had been living in this barn out there, had sold out to Dr. Robinson when the stock was at 40. So now these men have some paper money. They were trying to enhance the product and work, and had most of the stations lined up. The problem was that Siler, too, was more of a scientist than he was a marketer, and he was reluctant to price it according to what it really should have been sold at. The advertising agencies were big and arrogant also, and so they kept beating on him, "Hey, we don't need this stuff. We can use the Nielsen." And they had him convinced that they didn't really need this vital audience research. Well, they needed it like all get out, and increasingly today and as time goes on, because now cable is in with less network viewing. So they needed it badly, but they had Jim convinced that they could take it or leave it, "But don't you start running up a price on us here, and we'll just give some back to Nielsen." So he became convinced of that. But while the C-E-I-R stock was going up to 90 plus, who cares?

But on the way down, the more it got below 40, the more unhappy he and others became. And I'm sympathetic with him on that, because, I think, Robbie had these cohorts eating out of his hand on the way up, but they had trouble biting the bullet on the way down. When I got there I naturally got to know Jim and his people, and they wanted out. I said, "Hey guys, come on. I just got here. Let's not stir up any more than we've already done." So they settled back, but beginning in 1964, the stock was up to about 15, 15 1/2, something like that, maybe more; but that's what I recall. It just wasn't up where they thought it should be, because they were still producing most of the profit. And remember, they had sold out at 40.

ASPRAY: Right.

DICK: That's why I'm sympathetic with their view. I said, "All right guys." This was the beginning of the fall, maybe, of 1964. No, it was earlier than that. It was earlier in 1964.

TAPE 2/SIDE 1

DICK: So, let's say early 1964. Jim and his boys -- one of them ended up with Cox Broadcasting in Atlanta. They were united in saying (and I'll shorten this) over a period of seven months, "Look, if we don't get our company back, we're going to quit. We're going to take our company and go away." Well, you already have my attitude on that. I really tried to sell Jim and said, "Look, Jim, I need another year of your profits, before these other centers and companies are going to be self-sustaining to the point that I can afford the loss of the profit that you're pulling in here." And I said, "I'll do everything I possibly can to make what you want to have happen, happen." Well, they wrangled me about that for some time, and finally they came in and gave me an ultimatum, "Either we have it by Monday or we're all quitting." I said, "Well, just hang in there. Give me till Monday and I'll see what I can do." I said, "I'm not too sanguine about this, but let's see." Well, I had been talking to Bob and I had been talking to Dr. Robinson and he was panicky. But Holland and I had seen enough now to know that we did need the money to keep some kind of semblance in the marketplace and position, and that we weren't going to let it go. Robbie and I had a luncheon meeting with the Financial Analyst Association in New York on the following Monday. Bob and I got together and he said, "There's only one thing we can do. We just have to clean out there. Over the weekend I'll get new locks put on everything, and make sure that their desks are cleaned out, and when they come to work Monday morning they won't have a job. We'll give them a lockout." This is something, of course, that caught them totally by surprise. In the meantime, I am in New York announcing that I had stepped down as executive vice president of C-E-I-R and had assumed the position of chairman and president of American Research Group, and that Bob was stepping up as executive vice president of C-E-I-R.

ASPRAY: I see.

DICK: I figured this would be a temporary mode, and since I had been IBM's first advertising manager, I was familiar with Madison Avenue. It was the logical thing for me to do. And so I did it. If I hadn't trusted people like Bob Holland, I wouldn't have done it, maybe, but I did.

And so, that's what happened. I made the announcement in New York, and it just caught Jim and his cohorts really by surprise. When I came back I went out to Beltsville. I said, "Bob, I'm not going to be able to come out of here until I know where we stand. And so, you've got a new job. You go do it, and I'll see if I can hold this one together." There were a lot of tears by a lot of women out there. Some of them had grown up with Jim Siler -- one by the name of Sally Brown -- a lovely lady and a very good manager of the coders and punch operators. We hired 300 girls and then 100, and then 300, you know, as the survey sweeps evolved during the year. After assuring that Sally would be happy, the first thing I had to do was to make a couple of vice presidents. The head of the computers, for example, I made a vice president. I'm not sure whether he's still with Control Data or not.

ASPRAY: Who is this?

DICK: A great big guy -- very technically knowledgeable guy. Anyway, I made him a vice president. I didn't make Sally a vice president, but I made her a top manager and so on, and kissed her tears, and got the girls all organized for a good amount of work. It took a couple of days to do that, but by the end of the week they were convinced that it wasn't our fault and it wasn't their fault. It was a decision that Jim and his people had made and it was incorrect. They had misjudged the situation and I couldn't do what they wanted me to do, even though I had promised them that I would try to do it later. The staff at ARB bought all of that. It was all true, so it was easier for them to buy.

After about a week, I began to settle in to find out what kind of a job I had out there. I spent a lot of time in New York, which is not the world's greatest place to spend time in. But that's where I was, and then I began to understand what their marketing problems were. I listened to the agency research directors scream at me, but they did not cancel, a problem that Jim had always worried about. I also was working with the networks, some of the research people are still there, as a matter of fact. After those initial visits to ARB's clients -- agencies, stations and networks -- it became

obvious that there would always be controversy. Only the winners of the sweeps would be happy. The losers in the ratings couldn't charge as much per spot that the winners could charge. Millions of dollars swung on the ratings and careers of performers hung on the results, also.

ARB had the TV station market and Nielsen did a better job for the networks because of their overnight national report. But, the clients need both, really, as a hedge. Bob and I worked very closely together as far as the company as a whole. After about three or four months into 1964, I would say, I now had enough time to sit back and begin to do a little positive, forward thinking. I discovered a young researcher back in the bowels of Beltsville who was doing radio research. One thing I forgot to mention early on -- we had talked about the government and Congress getting into the act. I had no more gotten aboard C-E-I-R than Congress in 1963 started investigating the ratings business.

In those days you had Hooper, ARB, Nielsen, and two other small ones. The government's concern was size of sample and the statistical accuracy with which the surveys were conducted. We used to jest that some doubled the sample by reproducing the original survey results deck of punched cards. Since many would always be unhappy with the results, the only stand ARB, or any other audience survey firm could take was that of complete honesty and have a hole-proof statistical procedure.

So I decided the best way to beat the government was to lick them at their own game. That's when I got Morris Kendall, Jack Moshman, a pro by the name of Jenson, I think, on the West Coast, and two others I can't remember -- five of the world's top professional statisticians and operations research experts. When it came up to going before the hearing committee, there was the question of, "Well, I've got my team, you get yours."

They had appointed a couple from the Bureau of Standards and from the Census Bureau who were all right for their jobs, but I didn't think they were the caliber we had. It was a question of good faith and telling them what we had already done to insure statistically accurate results. The government discovered that our act was clean. Hooper and some others really hadn't changed and were violating the laws of statistics. We came out of that with a good, clean image.

I used that image, then, in marketing to the advertising agencies and all other clients. While it looked like a dark day originally actually it turned out to be an opportunity to build something on sheer honesty, which is the only thing that you've got to sell when you're talking someone else's money. The clients needed that assurance, because they, too, were asking big bucks based on the ratings. \$630,000 a minute now? I mean, come on; that's ridiculous. I remember when it was \$150,000 -- something like that.

I found this red-headed chap in a back room interested in new radio research. I said, "Well, tell me about it. What have you got in mind?" To make a long story short, I "stole" to Robinson \$150,000 from ARB's potential profits to finance basic research into whether it would be possible to do radio audience research with the same integrity as our TV research. By today's times, this was not very much. We had some real problems too. Compared with 400-500 television stations, we probably 4000 radio stations -- FM and AM. (Now there are over 9000.) FM was dying, and AM was not all that great. Salesmen sold their time if they could convince you that Hooper ratings were any good. But generally it was purely on the persuasiveness of the salesman. Nobody could prove a darn thing. There was no record, no rating system whatsoever. So we spent a year plus developing radio research, because I could see that television certainly had long since plateaued as far as numbers were concerned. It's like the casualty insurance business. You know, you get up to here, and then you're just shifting customers around a little bit. The only reason you're growing is because the premium is growing; you're not really increasing your customer base much.

ASPRAY: Right.

DICK: The only customer base we could see that had a future would be radio. Now it's true they were putting up some UHF stations, but even that's taken such a long time that it's never really done much. Radio looked like an opportunity, but Dr. Robinson was against it because it would cost \$150,000 worth of profits. If you don't build product, you don't make profit, as I saw it. Well, as I said, I'm a builder and I figured we ought to start doing something about some product planning and let's get some new business going. We tested everything -- still using a diary approach. We also tested everything from a nickel to nothing to ten dollars for per diary to check return rates.

It came out about the same as with television. You couldn't buy a return rate. You couldn't buy the listener to do the work. But you could thank them profusely and flip them 50 cents or a dollar, and they would say, "Fine." It was purely their desire to be involved in the exercise, and how you marketed sending out a diary. We would send out 350,000 or more at a time and hope we would get better than 150,000 back. Now that was particularly important, because, as I said, with radio you have a large numbers of stations. And so in a daytime radio town, if you've got 20 stations, you've got a lot of time segments to monitor.

ASPRAY: Yes.

DICK: I don't care how many diaries you've got out; you've still got a lot of segments not reported by a listener with 20 stations. Well, that's one area where we had to go to work. I presented the problem to Dr. Morris Kendall, and I said, "We can't get there from here unless there is some way in which we can make the data more meaningful, or more useful." He took the problem seriously and invented a whole new concept. Now, whether he had it invented or this was the first time it was exposed for use, certainly it was the first time it had been used in television and radio research. I believe he called it multi-variant analysis, a provable statistical technique to be used when the information in a survey is meager.

ASPRAY: I don't know of this.

DICK: Well, it's a way of getting points on a graph that aren't there. Now that sounds real hokey, but what it really is you're working both sides of a line and filling in...

ASPRAY: So it's some sort of interpolation.

DICK: Yes. That's really what it is. You end up having people watch programs they didn't see. Now you can't go that far to explain it to the wide, wide world, but that's what it amounts to. I'm a pragmatist, not a statistician, and as long as the professionals gave it their stamp of approval, I would be for it.

ASPRAY: Right. Okay.

DICK: It was a totally sound, statistical approach, and there would not be profitable radio in America today if you didn't have radio research, believe me. I think I and a couple of staff are viable pioneers in building a radio rating system. It's a risky way to live, but I like that opportunity business provides.

ASPRAY: Did you stay on with this for some time?

DICK: We paid Lehman's money back. Then is when I really understood Machiavelli; when the prince is dead, the soldiers die, too. That's what happened to me because now I had lost my leverage. I had forgotten about it. I was off running a business and making Dr. Robinson some money and saving his company, but nevertheless, these gnomes from the Riggs and venture capital people were now thinking, "Hey, yes, maybe we've got something here in C-E-I-R after all. We can't let Dick have it." I said, "I had it." It's theirs, but we were putting it together for them. So Robinson got some consultant from St. Louis. What was his name? Lou Wasserman, I think. Then the object was for Robbie to try and build up a case to get rid of me at ARB. Well, for another thing, I had developed a risk contract when I went to ARB which Betty Freret, our excellent attorney, wrote for me, where I would participate on a percentage profit basis in ARB profits. I think that's what really irked Dr. Robinson -- that I was going to end up making more money than he did in 1965(?). It's a good thing I did, because if I hadn't he'd have gotten me anyway and would have said I wasn't smart enough to figure out a way of paying for the risk and for Holland, too.

I had my own board at ARB and I had some very fine, top-notch people in the country, and they supported the radio research right down the line. They told Robinson to that effect... Well, see, Robinson didn't like those people telling him how to run his business. Since John Lehman had his money out, Robbie was back in control. So, to make a long story short his board finally voted me out about June of 1966 or something like that.

I left, and I didn't have the guts to pick up my stock options. I had no faith in Dr. Robinson being able to run

anything -- not that I'm the world's greatest manager. Holland didn't pick up his [options] either. Meade Camp and the vice president of marketing did. I don't know whether Robinson was going behind the barn and cuddling up to Bill Norris or not, beginning in 1965 or 1966, but I know that in 1968 he sold out and my options would have paid off better for the risk taken.

ASPRAY: 1967.

DICK: I think he began to get a little nervous about not being able to do what he hoped to do. Something else that happened in between there, just occurred to me. Mac McDonnell of McDonnell Aircraft came to Washington one day and wanted to have lunch with us. Now, he had gotten my name from the guy who really started the computer center at McDonnell. He had been an IBM fellow and was doing a good job, and Mac was on an acquisition gamut. So, now, with a man like Mac, I could see doing business, plus the fact we were far enough along where we'd proved the point that the business was viable. What he wanted to do was to build a business and not just hype the stock. He didn't need that. So I could see myself possibly going with McDonnell. But Robinson was now beginning to feel his oats, began to get greedy. Mac listened to him for awhile and said, "Thank you, but no thanks," and went off. He didn't need him, and he was right.

ASPRAY: Do you know when this would have been?

DICK: It was before I went to ARB. Probably 1963. We'd gotten our teeth into enough to know we could do something with C-E-I-R. We really weren't ready to sell, but we would have listened for the right price because we had good stock options. You know, let's not be stupid about it. I'm very proud of the organization that we had. It was lean-mean. It made money. As an independent it should have been the biggest in the field today, including the whole programming area in computer services, and professional services. He could think that way, but he couldn't get that way. So when they sold it all Norris really bought was ARB, because it was splintered and they merged the centers in their own centers and they became amorphous after that. I didn't pay any attention to the details when I heard the sale had taken place.

ASPRAY: I understand that a lot of the statistical, OR talent had already left the company by that time.

DICK: By 1967, yes, I'm sure it had. Yes, indeed.

ASPRAY: Let's turn to rather different topics. While you were at ARB, what was the formal relationship between C-E-I-R and ARB as organizations?

DICK: They were subsidiary.

ASPRAY: Subsidiary.

DICK: Oh, yes. All these "companies" were subsidiaries, whether they were foreign or whether they were domestic centers.

ASPRAY: So, formally, what did you have to provide to C-E-I-R in terms of documentation?

DICK: It was a total separate subsidiary. We had to provide all the documents that any stock company would have to have.

ASPRAY: Could you...?

DICK: Yes, including a separate tax report, which was consolidated in with the C-E-I-R tax report.

ASPRAY: Okay.

DICK: We had our own board, and the only one that had its own board. The rest of the centers in America were

centers of C-E-I-R. The corporations overseas were independent corporations.

ASPRAY: Okay. When ARB would make a major decision, what part would C-E-I-R play in that decision-making process?

DICK: We made it totally.

ASPRAY: You just made it yourselves.

DICK: From the time I came on, yes. Well, if Siler wanted to do something, he had to run it by the C-E-I-R board. He didn't have a board. Siler and his offices came in and made a presentation to the C-E-I-R board. But when I went to ARB I had a separate whole board that reported directly to me, and Dr. Robinson was a member of that board.

ASPRAY: Okay. Back at the time when you were with C-E-I-R as executive vice president, let's talk about some of the day-to-day activities that you would have had, and what kinds of other people would have come in, and what kinds of reports you would have seen. Suppose that you had a major new prospect, or you wanted to move into a new area of service. How would you go about that? Would you assign some technical to start looking at things? Would you assign marketing people? What would the process look like?

DICK: It would be a mixed bag. Some technical people had some skills at marketing. Many of them did not. We had marketing people who were good salesmen, but were not particularly in depth, so the men who solicited government business mainly to begin were the marketing men. The minute they'd sniff something out, that they'd go in with a team of technical people. After there was some strong interest on the part of the government (any part of it) then the technical people would prepare the proposal. They always prepared the proposal with oversight of the salesmen who had some ability in how to present things. We just didn't say, "Here's what it is. Here's what is costs." A little hype goes along with it -- a little salesmanship. That would be under Dr. Moshman's responsibility. He had the responsibility of making a proposal and pricing it out, because only the technical people knew how long, (hopefully,

how long) it would take to develop the study of a project, say by Orchard-Hays to develop a program for a major operating system, or something like that.

ASPRAY: Right. How closely would you and Holland and your offices be in touch with these things as they were progressing? Would you get...?

DICK: Very close! The projects were usually large enough to warrant top executive attention.

ASPRAY: I see.

DICK: The simple reason is... It wasn't I didn't trust them. I didn't know about their abilities early on enough to have that confidence in them, number one. And number two, they had horribly overrun past projects. So we were on it every month as a minimum.

ASPRAY: I see. So, would they provide, say, monthly reports to you of that sort?

DICK: Yes.

ASPRAY: Okay. And these monthly reports would say...

DICK: Usually daily from some of the biggest offenders. [laugh]

ASPRAY: I see.

DICK: Well, you're talking pretty large sums. You're talking about thousands and thousands of dollars.

ASPRAY: Yes. A typical report from the marketing people would say that they had contacted the following range of

prospects during this period and that they saw prospects in this area or that area. Is that the type of information?

DICK: I didn't have it every time. The IBM approach was you had to make so many calls per month -- A class, B class, C class prospects and all that sort of thing, which worked. But if you were a good salesman you didn't need to do that all the time; you could concentrate on the hot stuff. We had call reports for that kind of call, yes, for meaningful calls -- not just drop in for a cup of coffee.

ASPRAY: Okay. Why don't you describe to me what might have happened once you had a serious prospect. You said that the technical people would be called in to help develop a proposal.

DICK: The salesman would probably, over a period a months, begin to say, "Hey, there may be something in X agency. I don't know yet, I'm working on it. I'll let you know." Well, then he would come to a point and said, "I think we've got something here. I need Dr. Moshman's people to talk to them first to see whether there's any job there or not that we can perform on."

ASPRAY: Who would decide to allocate those people to this project? Would it be made at your office, or at Moshman's level, or...

DICK: The vice president of Marketing would go to Jack Moshman and say, "Hey Jack, can you help us out?" The relationships of executives were very close. I mean, we were next door neighbors, in the next office, and they were family. It was like, "I need a specialist for Tuesday. What do you think about so-and-so?" And Jack would say, "Well, he's going to be busy, but we sprung him for your call." You know, that whole work-out arrangement. Then that one or two technicals would go down with the salesmen to see whether a project made sense or not for C-E-I-R.

TAPE 2/SIDE 2

DICK: Well, if you knew the IBM method, you would know my method. It's mainly, 'If you want a new customer, you

go get one.' You don't wait for them. You've got to go market aggressively, and we did market aggressively after we had stanching the flow of blood. We began to build business, and we began to do satisfactorily complete jobs. I mean, that was one of the things that hadn't been done. There had been so many things not quite completed, hanging for so long.

From the marketing point of view, if you understand IBM marketing you would understand our marketing, because, frankly, for project-type marketing, and I look on most of it as project-type, whether you're ending up selling machines for installation, or whether you're doing a job of, as I said, linear programming or using a program that's already made to develop a solution -- it's all project results-oriented situations. You're not in there selling hardware; you're selling what we can do for you. That's the only way to sell; I'm sorry. There are others who disagree with that basic approach, but that's the way I build businesses, and that's the way I would continue to build them.

ASPRAY: Now, what sort of paper trail would be left from that? Would there be regular records of relationships with the customer over time after they were signed on?

DICK: Sure. Absolutely. If it were a routine, like payroll, billing or sales analysis, they would have been run at our various service centers, had monthly billing, or weekly billing, depending on the customer (how financially sound he was). That trail was just like any other business. We had monthly invoices. We had accounts payable, accounts receivable... certainly accounts receivable. I watched those, as Holland watched those, because some of our clients were just as marginal as we were financially, and therefore we didn't dare let them get into us very far.

ASPRAY: Right.

DICK: So, we watched those. This is where John Smith was very good. He was that kind of an accountant, watching nickels and dimes. When spending money, C-E-I-R did very well. When it came to buying companies with paper money, stock, not cash, that's what Robinson did and there was no control except his in-pocket board.

ASPRAY: Would there likely be marketing people or a sales person who would continue to provide reports on current or potential future needs of an existing customer?

DICK: Always. Always. In systems selling, and that's what we're talking about -- systems marketing, it's constant follow up. That's why you're in business. That's what Route 495 is for around here, Bill, to provide what are known as 495 bandits easy access to the various government departments and agencies in order to sell, build up a contract, and then sell a bigger contract. C-E-I-R was no different in its quest to professional studies and programming contracts. That's systems selling. You get in solid and you build a company around performance.

ASPRAY: So there are likely to be reports to that effect coming back into the office. There's going to be a paper trail of these somewhere.

DICK: We insisted on a trail; absolutely, there had to be. There were three kinds of reporting trails: 1) accounting; 2) status of jobs, project a study; and 3) final report (for other than basic service bureau work, which was usually on-going). The status or progress report, usually monthly, was necessary as the basis for billing by the accounting department. It was small, only three people, because, as with other professional service operations, there weren't many bills, but the amounts were sizable. The final report was the final product of all contracts, detailing and/or summarizing up all that had been done for that customer or that specific contract.

ASPRAY: When you had a more complicated service you were selling -- something that might have required some statistical analysis, or development of some service for your customer that would have required work for by your statisticians, what would be the process of development and what kinds of reports, paper, would you see involved in that activity?

DICK: The biggest problem in marketing that kind of contract by a professional was they are so excited to show what they know or can do that they tend to give the business away before they sell it. Do you understand what I mean? He goes in and tells them too much. It needs to be sold like a current MacIntosh TV commercial. The prospect

doesn't believe a computer could do all the work proposed and asks for its name. The lady leader of the profession team says, "Hire us and we'll tell you." That's the way to sell professional services. That goes for economic development. I covered the reporting process a few moments ago. The process was the same for all professional contracts.

ASPRAY: Yes.

DICK: Now, if he's a Moshman, or a Kendall, or any of a number of the professionals whom we had who were very good, most of the time they knew how to get from here to there. What you had to prevent them from doing was telling the answers, instead throw out ideas about how, if I were doing this I'd probably go this way -- build a scenario is what you had to do. You kept the answers in your pocket. You knew the direction in which you could go, because you'd often been there before. The solutions were different, because the problems were unique or the prospect wouldn't need C-E-I-R to solve them. But the mechanics were the same. I've hired Jack since I left C-E-I-R on different projects. He would ask, "Well, how much of an answer do you want?" I'd tell him, and he'd say, "Well, that's going to cost \$5000, or that's going to be \$20,000, or whatever." He would have to work it out, come up with answers at the quoted price, whether it was overrun or not. Of course, Jack is so capable in statistics that he's going to be profitable, because he knows how to get the answer -- a few computer programs and it's off and running. In those days, there was risk and more work to do, because the field was new. Computers were new as problem solving machines versus accounting.

ASPRAY: So you would get some sort of a written report from Jack, as well as some oral presentation, or an answer, or meeting...

DICK: You mean from having gone to a meeting with a prospect?

ASPRAY: Right.

DICK: Usually a proposal would result from that.

ASPRAY: Okay.

DICK: He would have a fix, or his people would have a fix, on the kind of information they needed, or the solution to the problem they needed, and then they'd come back and structure it so it would flow out according to what the customer understood would happen and write up a proposal. It could be a one-pager; it could be a ten, twenty, forty-pager. Then C-E-I-R would present it. The proposal would have to go through the prospect and then through the government chain as a bid. In those days it would not be a competitive bid, because it would be of a unique nature. So the prospect would often have the authority to buy it on their own. They'd go through their purchasing and come and come up with a contract order, which Betty Freret would authenticate. That would be become part of our accounting system.

ASPRAY: I see.

DICK: Up to then it was a marketing procedure. After that it was accounting based on professional performance progress.

ASPRAY: What difference did it make whether it was a private or a government customer in this business?

DICK: None, except the cost per hours we could charge, I think. We were limited... well, pick a number; say \$100 an hour, \$150 an hour. The scale was graded according to experience. Senior statisticians got so much, junior statisticians got so much, clerks got so much. We had to price out on a graded scale, which also affected what we paid our professionals.

ASPRAY: I see.

DICK: You tried to get as high as you could, that's all. But there was a limit that the government would pay for brain work, so to speak, but that was 20 years ago now. I don't know what it is now.

ASPRAY: But the paperwork that was involved in the two cases; the government had very fixed procedures about how you'd respond to requests for proposals.

DICK: Yes, we followed those.

ASPRAY: Did your requests with private companies become more compact? Was it a simpler, more straightforward...?

DICK: There was a greater variance in the result that we presented to them, because we had more flexibility in design, price, and everything else. We might put on a seminar, a three-day seminar, in preparation for a contract.

ASPRAY: Yes, I see.

DICK: The first step after we had a contract we would brief all the people that are going to be part of the team. You are interested in C-E-I-R/customer interaction. May I tell you about a high risk private contract to forecast National Election outcomes?

ASPRAY: That would be informative.

DICK: It was the fall of 1960. I was Vice President of Commercial Computers for RCA and had been aboard since July. C-E-I-R and NBC had obviously signed a contract earlier to use the RCA 510 in determining who won -- Kennedy or Nixon -- on election day.

Since it was our computer and run out of our Service Center in New York, I made it a point to be present, along with

an RCA Executive Vice President and, of course, all the NBC staff involved. The Tom Brokaws of the time were beginning to bill the night as the "Battle of the Computers." Univac and IBM were with ABC and CBS.

Great excitement, but also high risk, reputation-wise for us and the others, too. But of course, it was not a computer battle; it was a statistical battle. Who could devise the best statistical forecasting model and develop and make work the organizational structure needed to collect the vital information necessary to make the forecast model work and who could program the computer to grind out the right answers in time to be newsworthy -- like first on the air projecting the winner.

We have all seen it work very well many times since 1960, but that was the first on a national basis. A very risky venture and RCA, NBC and C-E-I-R had it all on the line. It was the first I had heard of C-E-I-R and the election night was the first time I met Dr. Jack Moshman and his staff. I was impressed by his coolness under fire and yet he had obviously been working long hours for days.

C-E-I-R had to just draw a national statistical sample out of the thousands of polling places, then hire local people to interview votes exiting the polls on their choices and phone in immediately to New York the raw data. In New York a phone bank had been set up to record the data, RCA keypunch operators had been trained to punch it out. A special computer program for the 501 had been designed by Moshman and his staff to massage the raw data according to the statistical forecast mode. The model's printouts told when the results were sound enough statistically to rely on. In other words, it gave the odds, risk, when the forecast could be made with some confidence. It was not a "Battle of Computers" but one of model building and efficient organizations.

Dr. Moshman forecast just that Kennedy would win, at about 7:00 eastern standard time. But the RCA ex-vice president wouldn't let Bob Trout, a Brokaw predecessor, to announce it because the poll votes previously had picked Nixon. No guts! Some minutes later CBS and ABC came out for Nixon. Jack still insisted that Kennedy was the winner, in spite of the other networks going for Nixon.

I personally tried to get the ex-vice president to buy in as a real scoop, but it wasn't until 7:45 or 8:00 eastern standard time, I forget when, that, with Dr. Moshman still insisting Kennedy was in, I finally convinced NBC to go with Kennedy. Pandemonium ensued. Univac went manual. That meant they had stopped relying on their forecast mode. Within minutes ABC and CBS changed their projection as gracefully as they could and said "new information" put Kennedy as the potential winner. C-E-I-R professionals had won, not the computer professionals.

By the 1964 election, I was now with C-E-I-R and interested that ABC had out-bid the other networks for our services, headed by Dr. Moshman, of course. This time we used our New York Center. Previous experience helped materially, of course, and this time ABC beat out the other network. Even after C-E-I-R folded, ABC continued to use Moshman for several more election projection contests.

Most business contracts did not contain the risk or excitement, but each moved the state of the professional art forward -- something only real talent can do.

ASPRAY: Okay. That's quite a story and gives a real inside picture. Now, what kind of interaction did you have with the C-E-I-R board? Was it on a regular basis?

DICK: Yes, I was on the board.

ASPRAY: They were here in town, and so you'd naturally just see people here.

DICK: No, it was a board of Robbie's cronies. There was an operating committee, which I was a member with Robbie, and got Holland on, and there was this guy from Riggs, and that was all. We only had a board meeting once a month. I suppose if I were going to do it over I would try to figure out some way of keeping Dr. Robinson busier, but we just didn't have the time in the early months to nurse him every minute while we were saving his company. It's that's simple. We began to build up these tensions, so that when a board meeting would come we'd have a board meeting for eight to ten hours. Now, we would have had Kendall over, Salzmman, who would be members ex-officio of the

board at that time also. Early on it was just Robbie; Don somebody or other, who was Mr. GWI; and then an old buddy of Robbie's who apparently had sold his stock on the rise, was living a nice retired life. Then I got Bob on the board. We had about six or seven. But we always had a few guests and this would be Robbie's way of telling himself he was in control. He would lecture us for about eight hours.

ASPRAY: Did you regularly prepare materials for the board?

DICK: Well, sure -- straightforward, typical board reports on finance, contract status and forecasts.

ASPRAY: I see. What sorts of documents would be prepared?

DICK: An agenda. Of course, we'd have minutes from the previous meeting. Usually I had something I was trying to hustle to get done, some action of some kind. Certainly up through the time where I still had John Lehman's backup support, I'd get everything through. But I've hated board meetings ever since. [laugh] I'm on a local condominium association (here) board. The C-E-I-R Board in the early months made no real contributions to improving the business. The financial risk was high and they would just as soon we got blamed if we failed.

ASPRAY: Was C-E-I-R, at this time, still going out and looking for additional money to run the company?

DICK: No, it wasn't available.

ASPRAY: Were there stock options?

DICK: Yes, Bob, Meade and I had stock options.

ASPRAY: I didn't mean to say... Did you have new stock offerings at the time, for example to raise additional funds, or...?

DICK: There was a period there in which we had to charge some senior debentures to convertible. I'm trying to think whether this was the way of getting Lehman support or whether it was also something to do with Greater Washington. No, I think it was Lehman. Our hands were pretty well tied in making company purchases. The object was to keep Robby from going out and buying companies. That was the object, but it also cramped our style in holding what we had. So, we were very anxious to get rid of those as quickly as we could. But that was the only restriction. No, we were doing all right within the restriction. I'd have to check with Holland; I've forgotten. Another question.

ASPRAY: What would the typical kinds of information that would come across your desk be from the legal people?

DICK: Well, a confirmation of completion of action, or recommendation as to action taken. Betty Freret was a superb staff person. She didn't play any games. It was right out there on the table. And it was either done and forget it, or this is what you've got to do before we can do it. Now, that's what you need a lawyer for. You don't need them to come in and help you run your business. She tried on occasion, because she was very capable, and she had been around and had seen that the future direction wasn't all that good. You don't want a lawyer that's vice president of marketing, for example. So, in that regard, we'd had stern discussions, but Betty was always allowed her opinion, as far as I was concerned, because she was smart and doing her job admirably.

ASPRAY: Are there any kinds of reports, or documents, or papers that would come from marketing that we haven't talked about already in the course of our discussions?

DICK: Yes. We haven't talked about budgets. We haven't talked about forecasts.

ASPRAY: Okay.

DICK: Both of those were part and parcel of any operation I've ever been part of.

ASPRAY: Yes.

DICK: In this case, Meade Camp developed his budget. The accountant, under Holland's direction, did it for the whole corporation. The centers -- San Francisco, Los Angeles, Boston, Chicago, where ever -- would have to come up with their own budget and their own forecast, but under the guidance of the vice president of marketing.

ASPRAY: I see. Those would then be submitted to the vice president of marketing?

DICK: First.

ASPRAY: First.

DICK: Yes. If it was a marketing question it would be first. But if it was a question of machines and so on, he would have to request that along with his budget, because he couldn't control it. He couldn't go out and buy machines himself. All major purchases (or leaves) were approved by me, after Holland's approval, while I was Executive Vice President of C-E-I-R before I went to ARB. Then my own board approved the final budgets.

ASPRAY: Did the technical staff have to report, perhaps through a manager, to your office?

DICK: They reported through Jack Moshman, who was vice president of Professional Services, and Jack had had his own budget and forecast. But he worked that out with Meade Camp, Marketing vice president. They jointly worked out the overall margins. Jack was a great professional performer, but he was not a good manager of professionals in the early days. He was an artist, so to speak, and money problems didn't concern too much. His staff would be off and running in various interesting directions, but costs could be out of line. Jack was great in developing follow-on business in the government, but he began to learn discipline. The fact that he has run his own successful consulting business for many years shows he learned soon enough.

ASPRAY: Did certain potential new areas for the company come out of the technical staff?

DICK: Absolutely, yes -- not always successful, but we tried constantly. We were on the cutting edge of technology for information and information processing. We were the cutting edge in the information age, operationally. Now that meant you had to invent a lot of new wheels.

ASPRAY: Once an idea would come about, how would it be developed and brought to the attention of the senior management. What would be the process by which that would...

DICK: This is conjecture on my part. I suspect that whoever got the idea ran to Moshman first. They would wrestle and then Jack would knock it off, or say, "Go back and do this." I know that's the way he works. I did some consulting for him at one time. We sort of changed off. So he's a great one for giving you your head once he thinks you know what you're doing. Or, if he doesn't, he will abandon you completely because he has no confidence in what you're doing.

ASPRAY: But once he thought it was developed to a point that it was promising for the company, it would be Moshman, most likely, that would present it to you and to the other senior people in the company?

DICK: Yes, absolutely. If it was that kind of a product. Now, if it was a typical accounting application, no. That would be done at the local level. They would have the packages for producing it, or if they didn't have the package they would reinvent one to do somebody's payroll, or whatever it was. That was a local center responsibility thing. That didn't have to come to Washington at all. That was routine. That was bread and butter stuff.

ASPRAY: If you were starting to open up a new area in the airline business and you locally thought it might have greater significance than for just one airline -- was that the sort of thing that might well be brought up to Washington?

DICK: Absolutely. Well, the whole linear programming concept mentioned before that went into making up a schedule for airlines and airplanes is an example. We kept coming up with 3.2 stewardesses in 1.3 airplanes. I understand they've solved that now with linear programming. The problem was you had to churn the computer for days then for the optimal, and the computers couldn't crunch numbers fast enough to give you an optimum within any reasonable amount of time. So there may have been some programming tricks, too, that I am not aware of now, but I understand that that has been solved. My daughter, who flies for United, puts in her choices of days and flights and gets a complete printout of her weighted choices early on.

ASPRAY: What cheaper and faster computers can do for you.

DICK: I made a speech once in 1960 while I was still at RCA at some meeting (as I always have been talking ahead of my time), and I talked about the fact that, hey, you're going to be playing "what if" games. I lectured at the War College and I said, "Forget what computers are doing today." (This was back in the early 1960s.) "That's not what they're going to be bought for. They're going to be bought by management to help make management decisions." I also said, with brilliant foresight, that they would get much, much smaller, but you could buy them at Tiffany's.

ASPRAY: Help with management...

DICK: And we're just starting, I believe. Of course now, these small powerful jewels can be bought at your corner store.

ASPRAY: Have there been any aspects of your day-to-day activity that we haven't touched upon? Are there other aspects of your job that haven't come up?

DICK: Well, if you're talking about how I manage or how I would work with people, we could talk about that. I've got some opinions...

ASPRAY: What types of decisions you had to make, or kinds of questions that you had to consider other than reviewing technical programs, reviewing marketing programs, financial control, relationship with your board.

DICK: Well, the ARB board, I had absolutely no problems there. I had top people, and I treated it like I treat any other board, and kept them thoroughly informed. I always got their unanimous support, except from Robbie; he didn't want to spend that money researching radio. So he really had to bite his tongue, and the minute he could get a hold of me he did it. I get bored with things on a day-to-day basis. When I have things working on a routine and I've got the staff to handle it, whether it's one man or a thousand, I let them run, but I keep a long rope. I give everyone an opportunity to be successful and to fail. But hopefully, I'm close enough behind him before he fails badly, and we can reorient and move on. I'm trying to see what's going to happen tomorrow. I'm a futurist; I've always been that way. As I said, I'm a builder. I don't like to rebuild what I built yesterday, you know; let's go on and do something to add to it.

ASPRAY: Were there strategic plans for the organization that were formally produced in record form, in paper form?

DICK: I would say so, but not until after the first year when we were scrambling to see what we could salvage out of the mess. Then we began to develop of plans to use what we had. We began to look at the various technologies or techniques that we had in our talented professionals, and tried to develop departments, or divisions, or sections out of that talent, so that we could have a nucleus of something we could market. You can't market something ephemeral except to other dreamers. We began to have some strategy. Then we came up with a marketing budget, "All right, now, of the new project possibilities that we think we might want to tackle from a marketing point-of-view this year, this is all we can handle."

And that's the problem, frankly, with entrepreneurs, (and I have, unfortunately, worked with too many of them). An idea a minute, and they want to put them all into effect. You just can't run a business that way even though you'd like to. It would be great to sit and talk about the good old times, and what are we going to do here and do there.

Well, that's B.S. It's good for the ego, but you can't build a business that way. There is never enough money.

ASPRAY: Right.

DICK: We did not inherit a smooth, oiled organization by any measure. There were some prima donnas, which you'd expect with the talent some had. The other professionals were bright, but not strong enough to fight Dr. Robinson. So they'd get beat down, get unhappy. There were a lot of personality problems. I tended to handle those as much as I could out of the circuit on a personal basis, because I understand the creative mind (I think I understand the thinking mind). I understand their needs, and here was a business whose need was based upon solving their personal needs. So I had to have some insight into how these people thought. Since I've always been a curious fellow, I was also interested in what they were doing, which helped lower the unhappiness ratio.

I guess, to sum it all up, I'm a typical Peter Drucker. I've always tried to bring the best qualified people aboard to help me get the job done. I keep them informed and let them set their own goals. Meeting them gives them the psychic income they need to work hard and succeed. My job is only to assist them in doing their job. In return I get the overall job done much easier. It has always worked where I've had the responsibility for results. But, where the boss' agenda is different, it's impossible. The President has to be behind any new direction a company takes or his managers will fail in their efforts.

C-E-I-R could and should have been the largest company of its kind in the world. Dr. Robinson saw the vision, but got blinded. When he sold out to Control Data, it was decimated. The team I'd attracted because of this vision made it a profitable growing business and made Dr. Herbert Robinson a wealthy man. So far he hasn't said, "Thanks." I wish him a long healthy life. We had great fun contributing to it!!

END OF INTERVIEW