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Interview with Rich Reindl

RCA Heritage Program

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[0:00:07] Richard Reindl: Good morning. My name is Richard Reindl. I was hired at RCA in the Camden facility, I guess at that point in time it was GCS, Government Communications Systems, in 1973. I was hired at RCA straight out of school into actually the rotational program. Now at RCA, they had an introductory program for new engineers where you actually came in and were able to visit multiple RCA sites, and work on a five-week interview at four different job functions. I was able to actually rotate through four different areas. My final state was at GCS, which is where I stayed and spent my career.

[0:01:01] Female Speaker: What was the first project that you got to work on?

[0:01:05] Richard Reindl: My first project within the GCS activity was called the Tenley/Seeley program. It turns out I worked for a rather well versed engineer, Bob Torey, who was assigned to manage an ASIC design activity. The ASICs were there to support the Tenley Seeley program. I believe the actual program was awarded to RCA in the prior year, 1972. They were taking on a rather extensive activity to develop a total of 36 LSIs. I was fortunate enough to have some background because I actually had co-opted at IBM and actually had some prior background in ASIC fabrication, and the processing involved with ASIC fabrication. So that my background suited well to be groomed into an ASIC group that was assigned to this program. They felt that I had enough, I guess capabilities and understanding that I might be a good asset to the program for this LSI development. I worked for BobTorey, and we were doing early development of ASICs for a very comprehensive program for the government.

What was interesting within that activity is we were tying together a bunch of other divisional involvement. RCA has labs and other activities that were used to capitalize on capabilities. One of those capabilities was that ATL had developed a cell family. That is the transistor structures and functional structures for ASIC utilization.

[0:03:05]   They had coordinated with a second division, which was Somerville New Jersey, a fabrication facility. Now those two facilities had done advanced IR&D work to develop ASIC capabilities. Now interestingly enough we used an additional division as part of the commercial TV group that actually did the artwork for the ASIC developments. Early developments actually utilized at a whole bunch of commercial and IRAD, IR&D type of activities to facilitate this adventure, this utilization

of ASICs. I was able to get in on the ground floor because I was actually probably one of the first engineers associated with this group that was able to bring all these pieces together and work towards a project goal. I was very fortunate that my manager, Bob Torey at that time, was very willing to put me under his wing. But he also gave me free latitude to do what I felt was right to do the ASIC development.

[0:04:26] Female Speaker: Were there any other major projects that you worked on during this period?

[0:04:30] Richard Reindl: No. Well during my career, yes. It started with the Tenley Seeley programs, but it certainly went on to many different ASIC related and digital design related programs. I probably, on the offing is probably 30 or 40 different programs. But there was certainly Tenley Seeley, there was Vactor, there was… At this point and time I can't quite remember them all, but I certainly… I guess I should have listed them down before I… But my involvement at RCA was heavily digital design. Primarily focusing in ASICs. The end of my career targeted towards the development of the MCP, which is a multichip module, which incorporates ASICs. Backing back from is we built a custom COMSEC chip called the Unity. Which was incorporated on to this multichip module. Prior to that, we had had multiple families of designs that were targeted to enhance our capabilities within the digital and COMSEC areas to meet customer requirements.

[0:06:09] Female Speaker: You mentioned your one supervisor. What was it like with your other coworkers?

[0:06:16] Richard Reindl: RCA was great. It was really a family of people. There were a number of managers that had cousins, brothers, relatives, wives, and husbands working all within RCA. It actually felt like a family of people. Everyone was related to everyone else in a lot of respects. But the teamwork of the people was extremely good. I don't think there was ever a case where people could not work together or share their capabilities. Specifically, we had a friend Bartholomew who we would comment on a daily basis that he didn't talk much, but whatever he did was extremely sharp and his intelligence was pretty far out. Both him and Bob Torey didn't talk much but they were extremely sharp individuals. We had a number of characters. We had our Eddie Mozzi's, we had our Kenny Funk's; we had our George Hilal's. All people that brought different approaches to the work and different characteristics of how they approached things.

Kenny Funk, for example, was actually the design engineer I started working with initially. One of his pet habits or idiosyncrasies is he used pencils down until they were nubs. He would constantly have a box of pencils on his desk and he would constantly be sharpening them,

shortening them, sharpening them, and shortening them. To the point where he would be working with an inch long pencil doing his design work.

[0:08:16] Actually, as part of his retirement, I actually bought him a box of pencils, and I cut them all down so they were only about 3 inches long. But they had a brand-new eraser on the end of them. Because he was always working with pencils that had no erasers, so I felt it was appropriate. He was one of those that were a character. Just bottom line, he was a character. That had a lot of influences on me over the years.

Kenny Funk would also get us into trouble every once in a while. He had a good habit/bad habit of… A lot of our designs are classified, so what Kenny would do is he would take what he considered unclassified designs and actually would cut them out. He would get rid of the classifications and the things that made a particular design classified, or at least in his mind, and would use that as cut and paste items in some of his documentation and the like. Every once in a while we got into trouble with security when they found some of his paperwork that wasn't quite as sanitized, as we would normally be expected to be.

We had an associate of ours, George Hilal an interesting story with George. George was a hardware design engineer that worked on a lot of the hardware that we built up. My primary task was to do the design work for the ASICs, follow them through to the factories to be fabricated at the ASIC level and then bring them back for the equipment's. The equipment people would then put them into their boards and then do the final integration at the equipment level.

[0:10:17] We had one individual, George Hilal, and I believe he was… He wasn't Iranian, he was from Serbia (Lebanon}. This was back in the days when there was a lot of hijackings and bomb threats on planes and the like. A lot of times we were asked to bring equipment to and from different army bases, and the only way we were allowed to bring these classified boxes was to hand carry them on to planes. When we went to the airports, we would have a special piece of paper that says, "This box is classified, it's got to be hand carried." George Helou was particularly assigned to this particular task of bringing this equipment to the base, had to fly an airline to get there. He presented the documentation and this box, which was double wrapped in brown paper and they were not allowed to open it.

He went up to the counter and apparently made a little bit of a scene about getting this through, and the fact that he had enough paperwork. I remember distinctly the story coming back that

apparently the final say so on bring any boxes or anything on to an airline is the pilot's. The pilot has the final say, his responsibility for what goes on the airplane and what does not go on the airplane. Well apparently they called the pilot out to talk to George, and George by this point in time had gotten even more elevated in his insensitivity about opening the box up and insistent about bringing this box on board with him.

[0:12:16]   I remember the story that came back was that the pilot says that, "This man and this box are not going to be allowed on my plane, period." He was thrown off the plane, and was forced to go and get another airline to take him to his final destination. Bottom line, with his Syrian background, he had the complexion that was a little bit sensitized at that point in time. The fact that we were on heightened security for bombings and the like that his particular demeanor at the time didn't pan out very well for that flight.

There were lots of little caveats that always came up during the days and how to get things done and people. I think your original question was how were the people and the family I worked with? I think the people were all very good. RCA was a family, and I miss that crew of people.

[0:13:24] Female Speaker: Kind of going along with the RCA family and everything, other people have talked about the Christmas parties and the outside of work type relationships. Do you want to talk about that for a little bit?

[0:13:37 Richard Reindl: Sure. The Christmas parties and the gatherings that were hosted by the RCA families, specifically Don Parker. Don Parker had Christmas parties every year. Or at any special program milestones: final deliveries, contract wins, stuff like that. Christmas parties were pretty interesting and friendly. Everyone had festive times. Don Parker was always a very boisterous and fun-loving character. He would constantly try to egg people on, and seemed to have no limits as to what he would project we should be doing or how far we should party. How complete we should have fun, dance, and party and the whole bit.

I remember one specific time at one of, I believe it was a program milestone. He had the group of engineers there, and he commented how we should be celebrating for our great successes. And I made the recommendation that we should have champagne. He kind of says, "Well go ahead." I actually did order a bottle of champagne, and wound up footing the bill for it myself. Because it was over and above what was allowed for by the contracts and by the company.

[0:15:35]	But certainly he was very big on celebrating successes and bringing the teams together. I remember at all the Christmas parties he always thanked the spouses for their contributions to the success of the RCA family. He was always good.
[0:15:56] Female Speaker:	Going on with that too, everything and all the relationships you had, what was it like to retire from RCA?
[0:16:04] Richard Reindl:	Well, it turns out I wound up retiring from L-3, which is the fourth or fifth generation from the original RCA. RCA was with us, I started there in '73. I believe GE bought us out in '85. Then we became Martin Marietta, combined to Lockheed Martin. Lockheed Martin then sold us off as L-3. I retired from L-3.
	I had contemplated my final retirement date for a while, and the opportunity was proposed to me several times as to when to retire. I was having fun. My entire career, I enjoyed my time at the RCA and the associated companies. I always kept pushing off my retirement date because I was having fun. But it did get to the end where a situation came up where it was time for me to leave, and I did retire after 41 years. It was quite a while.
[0:17:22] Female Speaker:	Are you from South Jersey originally?
[0:17:26] Richard Reindl:	Originally, I'm from New York City area. I was born and raised on Long Island. I went to school in Brooklyn. Spent most of my early years up in that area. Commuted to school. I co-opted with IBM. Turns out I was able to work with them up in their chip manufacturing facility up in Burlington, Vermont. Which kind of looked very good on my resume. The people that saw that particular note on my resume kind of highlighted that and tied that into my future endeavors.
	Once I graduated from school in 1973, I wound up coming straight down to South Jersey. Actually, with a fellow graduate from Pratt. I went to Pratt Institute. He and I were both hired by RCA to come down to South Jersey, and he and I roomed together for a couple of years. We put our roots in down here, and I've been down here since.
[0:18:35] Female Speaker:	After your years of working with RCA, were you able to see any measurable changes in the area because of RCA? Anything new to the community?
[0:18:45] Richard Reindl:	Well RCA seemed to have been everywhere. Every part of the South Jersey area. But it's surprising that the few number of people that I actually bump into out on the streets. RCA is obviously there. Part of the Lockheed Martin divisions are still around. The Computer Group was in, and out of Cherry Hill for a while. There's been a lot of growth and retraction of the RCA presence from a company point of view. It's

interesting, I don't meet as many people out on the street as you would expect with the amount of people that worked at RCA, but I do bump into them here and there. It's great.

[0:19:36] Female Speaker: Would you call your career at RCA, would it be just a job for you?

[0:19:43] Richard Reindl: No. It wasn't just a job. I had been on several occasions told that I take my job too seriously or I take it too emotionally. I felt it was actually; I was passionate about my job. I felt that I was fortunate that I was doing something that I really liked, loved. I was given a lot of leeway in making the decisions I did. I felt that in most cases my management allowed me to freewheel it, do my own little thing, or to pursue aspects of the job that they did its direct me to do.

I was fortunate in the fact that I never had a day where I didn't like to go to work. Certainly there were things, certain things of the job that I didn't like, but in most cases I was always more positive than negative on anything. I never resented going to work. Certainly, there were issues. Certainly, there were problems. Certainly, there was stress. Certainly, there was aggravation. But I never felt that it was a job. I felt it was a hobby that paid my way.

[0:21:00] Female Speaker: Do you have anything else you'd like to add?

[0:21:03] Richard Reindl: I felt that over the years I've had the opportunity to work with a number of engineers working for me. Cultivating them and how they pursue their careers. I tried to help them grow, just as RCA had helped me grow. I certainly tried to instill upon them or pass on to them the same type of either passion or enjoyment of their job.

I've told them, I says, "If you don't like your job, it's not as much fun. You really should enjoy your job. You're not going to like every aspect of it. You're not going to be like to be told what to do on some occasions, but certainly your job pays for you to go through life and you might as well enjoy as much of it as you can."

I always encourage people to follow their passion. Whether it was working with me, working against me, or working somewhere else. A lot of my friends, a lot of the people that did work with me, possibly left because they followed their passions, and I had no problem with that. I always wished them the best. I said, "It's better to go to a job that you enjoy, than to go to a job that you hate." That was kind of my approach on working.

[END OF TRANSCRIPT]