

Sandy Hook, Gateway NRA, NPS  
Oral History Interview with Bernard Martin  
Civilian Employee with the Signal Corps

1941

April 23, 2003

Interviewed by Melissa Kozlowski, Monmouth University student intern

Transcribed by Mary Rasa, 2010



Photo SCGDL No. 472-S, 11-3-41.

Figure 3.

FORT HANCOCK LABORATORY

General view of the Signal Corps Field Laboratory at Fort Hancock showing the Administration Building used by the Radio Position Finding Section. A partially assembled Radio Set SCR-268 may be seen in front of the building at right.

(See Chapter I, C, page 10.)

Signal Corps Laboratory where Bernard Martin worked in 1940 which is today's Fishing Beach. Due to beach erosion the land where most of these buildings were is underwater.



Photo SCGDL No. 469-S, 10-29-41.

Figure 1.

RADAR ANTENNA SHELTERS

Examples of externally-buttressed wooden antenna shelters whose non-metallic construction permitted adjustment and testing of Radio Set SCR-268 without exposure to the weather. The row of shelters shown here was built by Western Electric on the Signal Corps restricted reservation at Fort Hancock. The foreground illustrates terrain of Sandy Hook.

(See Chapter I, C, page 8.)

Completely wooden structures built to house SCR-268 on today's Sandy Hook Fishing Beach. These buildings did not contain any metal including nails.

Photos courtesy U.S. Army

Editor's notes in parenthesis ( )

MK: This oral history interview with Bernard Martin is taking place on Wednesday, April 23, 2003 at Sandy Hook, New Jersey. Mr. Martin was at Fort Hancock as a civilian engineer from March through December 1941. When and where were you born?

BM: Boston, Massachusetts on January 15, 1919.

MK: And where did you graduate from?

BM: Pardon?

MK: Where did you graduate from?

BM: Well, high school was in New York. Wootton High School and then I put in a year at Brooklyn Polytech in New York. Then (I) went up to what today would be considered a trade school up in Boston called the Massachusetts Television Institute. Where we were involved in a rather extensive electronics course which constituted I suspect what was lacking in (inaudible) a Bachelors Degree.

MK: Was your Father or Grandfather in the military?

BM: No.

MK: How did you become involved at Fort Hancock?

BM: Well, I was as I indicated working in television in New York in research lab. In late 1940, the Federal Communications Commission decided there would be no commercial use of television pending the settling of world conditions. And the television industry such as it was in those days sort of just folded up. A large number of people who had been working in that field left the field and went into the electronics activities of the armed services. The Navy got some people. A lot of us came down to the Signal Corps, not a lot but a number of us came down to the Signal Corps at Fort Monmouth. I started work here in March of 1941 and let me answer your questions from this point.

MK: So you started in 1941, March and you were here until?

BM: I stayed here at Camp, at the (Sandy) Hook until approximately well I guess around December 1<sup>st</sup> give or take a week at which time I was sent down to the Chief Signal Officer in Washington on temporary duty. I traveled and there again you have a situation where a lot of, a number of engineers from the Fort Monmouth organization went down there on temporary duty. Sometimes for a week, a month, two months. I stayed down there in the Chief's office until December 9<sup>th</sup> when I was yanked out, and they said, "Do you know something about radar?" I said, "Yes." They tell me, "What?" I said well, I've been on the Life Test Program at the Hook for six or seven months at that point. They said, "That's coming into Washington. You go help the National Guard set them up." So we set up six sites in Washington, D. C. in the next couple of months. The next month and a half I guess. And I was putting in about either a full day or a half day with the National Guard, then I would run back to my office in the Expediting Section of the Lend-Lease Telephones for the Russians. And I did this for several months and then finally ran out of travel order time and I came back to Fort Monmouth.

MK: Did you know anything about the type of job you would be doing at Fort Hancock before you got here?

BM: No, not a word. Not a word. I reported into Squire Laboratory in Fort Monmouth on the 16th and after filling out innumerable papers as was customary for a federal job I was told I was going out to Fort Hancock to the so called R.P.F. section of the laboratories. R.P.F. was the general term for what later became the radar organization, Radio Position Finding Division I believe of the laboratories. I came out here and started work quickly. Transportation of course, became a considerable problem. I located and found a room in Red Bank and did not have a car at the time. So, the first two weeks or so I wound up walking down into the center of Red Bank having breakfast, having a sandwich made up for lunch. Getting a bus over to Atlantic Highlands which was a long trip at that time and then a second bus to the entrance of the Hook and then from there on I would thumb my way into our section. That went on for two weeks and then I said this has to stop.

MK: That's quite a hike. (laughter)

BM: This has to stop. I went back home back into New York and bought a car and that ended the commuting problem. I haven't been without a car since that time except for some military service time in the Pacific later on.

MK: What was your rank or title?

BM: I started work in the as a radio mechanic for the (Signal) Corps pending an evaluation of my background and what have you, paperwork. And some months after that I was promoted or transferred or changed over to a junior engineer rank.

MK: In what unit or department did you work for?

BM: Here in the R.P.F. section of the Signal Corps Laboratories as it was known at that time.

MK: What were your responsibilities here?

BM: Do whatever I was told. No. At the beginning we, I was involved in this, I worked with television receivers which represented a particular rather discreet form of receiver. I was put to work with the receivers used on the radar sets that we had at the Hook. And that was specifically the SCR-268 which was the first Short Range Signal Corps Radar Set.

MK: What background or education did you receive before you came here?

BM: Well, as I indicated before basically a background in electronics. We covered electronics and electrically circuit theory in electricity, physics, mathematics and that pretty well covered it. But again it was all pointed toward the electronics associated, the

level of electronics associated with the television industry which was in its infancy at that point.

MK: Did you job here aid you in your future work?

BM: After the Signal Corps, no, not really. Except it taught me something about how people work.

MK: While you were here were there ever any alerts of potential enemy attacks?

BM: We were, I should before I answer that I should qualify it by saying I had done a bit of receiver work in the beginning. I also was involved in the Life Test Program which we had a series of radar sets set up on the beach which ran 24 hours day. And on a three shift basis we had a small crew there 24 hours a day to make measurements of each of these sets to determine the change in characteristics of the operating systems. So I stayed on that Life Test Program and that's where I originally learned something about the (SCR-) 268 which I subsequently installed around Washington, D.C. for the Air Defense System there. I should add a couple of other points in connection with the time. I found secrecy was paramount. You spoke to nobody except the people that you were working with and maybe spoke to them only about what you were doing. And I fairly quickly located two men who had been instructors of mine in Massachusetts Television Institute in Boston. One of them was Hy Ammons, Mr. H. Ammons who was one of the senior engineers in the R.P.F. section. And the second one was a Porter H. Evans who was the project manager for the Western Electric facility. The Signal Corps had contracted with Western Electric to fabricate, build the SCR-268. And some of it was built down at Point Breeze in Baltimore and some of it some of it was built in Kearney, New Jersey. They were then assembled and brought down to Fort Hancock for flight tests. And they had a series of 8 buildings which was specially designed to Signal Corps requirements to permit testing of these radar sets indoors. The buildings were built with no metal inside. No nails, no nothing, strictly a wood structure, so they wouldn't interfere with the regular frequency radiations. Porter Evans who was basically my math teacher he had been in the film audio business, the movie business in California for many years but retired. He was up in Boston working the school as head of the instruction department. And then the War broke out, before the War broke out actually he had come down. He left Western Electric. Yanked them out of there and brought them down here as project manager for this thing. They inspected all the radar sets before they went out into the field and flight tests. I had some personal contact with a few people here at the time but again there was never any discussion of anything about what was going on there. This was a big deep dark secret. Even to the people there. We didn't know it at first what these monstrous things were. Of course, we learned fairly quickly but it was quite an experience. Anyway I should mention that they were also I mentioned the SCR-268 which was the short range so called fire control radar but it wasn't really. It was a searchlight controlled device and accurate enough for fire control and that was one group and there was another group here at the Hook in a slightly different vocation. They were across on the bayside of the Hook. They were developing or had developed a long range radar set known as the SCR-270 and the SCR-271. And these sets were the ones that located the incoming

Japanese planes at Pearl Harbor, Hawaii an hour or so before they actually reached Pearl Harbor and did the subsequent damage that started the War. The group of men that were working over there on the long range equipment over a period of time we got to know some of them and again we knew nothing about what they were doing. In fact, not detailed we knew they had a radar set and that's all we knew. So these were the two major projects that the Signal Corps ran at Sandy Hook. These of course, have nothing to do with the military activities further down Fort Hancock. We were half way out on the hook. I don't know if you knew that location. Where it is? Do you?

MK: That is actually the Fishing Beach and throughout the winter it is completely gone. Completely eroded.

BM: Yeah. We had a fairly extensive community of buildings there and a lot of people working there. And as I say I mentioned before there were eight buildings assigned to the Western Electric group. And since we never ventured beyond, I shouldn't say that. We were permitted to use the gas station which sold us tax free gasoline otherwise I couldn't (inaudible). Some of our people used the ferry over to Governor's Island on Friday afternoons back into New York. The bulk of the, well I shouldn't say the bulk but a good number of the people working at Fort Hancock or the Fort Hancock group that I was concerned with were from New York. Get the ferry to Governor's Island, Governor's Island took a ferry over to the Battery and the subway home.

MK: Tell me about the eight buildings that Western Electric had.

BM: Well, they were similar to four that were built by the Signal Corps. They were all built by the Signal Corps but the four buildings were fairly large structures with tremendous typical hanger doors so you could run large trailers in there and cables and that. And open up these wings on the trailer that represent the antennas, which held the antennas. And they were made as I noted completely of wood, no steel, no metal whatsoever to minimize any interference from the R.F. radiation. And they would run these sets for several days and sometimes run flight tests. But usually the tests consisted of looking over the (New York) Harbor at New York. And one of the classic targets was the parachute jump and some large towers right behind it on Coney Island. They were, I don't know that accurate distance from the Western Electric area, but the location on the beach where the Signal Corps was running Life Tests, they were 17,000 yards away. 10 miles away from the gas tanks. And that was a standard calibration method as it were if you will for the rangefinders. We could see what later became ground or sea clutter over the harbor and occasionally ships going in and out. But that was my, if you will, introduction to the radar business. Radar is of course a contraction of Radio Aircraft Detection and Ranging. And a book by that name was written by Doctor Zahl who was the probably the ranking physicist with the Signal Corps through the War here. Responsible for much of the development work. He had been here since I believe probably 1936 or 1937 working on that subject.

MK: Did you go to the beach while you were here?

BM: We were on the beach but we never used the beach as a beach. The only person who ever used it for something else was Major Corput, who was later General Corput. Rex Van Den Corput and who, oh boy I've forgotten his name. He used to go down here to the Hook get horses and ride the beach.

MK: On horses?

BM: Yep. Yeah. Yeah. But Rex Van Den Corput was the military officer in charge of our activities. And I don't know if he was a Signal Corps officer or actually an infantry officer. I don't know the horses. I don't know what division he was actually from.

MK: Did you work with many military then?

BM: Pardon?

MK: Did you work with many military men?

BM: We had military supervisors here at the Fort. Major Corput and a few other military officers but were nominally, well Major Corput was actively involved. The other were nominally supervisory. They listened pretty much to what the engineers had to say.

MK: Before we started the interview you mentioned that you worked at the Guggenheim Mansion.

BM: At the what?

MK: The Guggenheim Mansion, present day Monmouth campus. What can you tell me about that?

BM: Nothing much really except that in 1950 or thereabouts this is much, much later of course after the War. I was one of the Senator McCarthy's top targets for suspension and prior to actual suspension I was put in isolation and my isolation ward if you will was over there. And I sat there and wrote lesson plans basically for a correspondence course school portion for a Reserve group. Later they had rather extensive training program.

MK: Did you know of any servants, minorities or women that worked here?

BM: No. We had some secretarial help at the Signal Corps location but that's all. I should, okay I won't go beyond that point at this time.

MK: No no. Go ahead.

BM: I was going to say later on we got into, I got into other work after my return from the Washington sojourn. I was setting up those radar sets and my work in the expediting section. I returned and instead of coming back to the Hook I went to (Camp) Evans

which was where the radar group had primarily moved. And what remained at the Hook became a school for military and civilian technicians who were taught how to maintain the SCR-268. So the Hook changed from its research and development activity to a school function. And when I say the Hook, I mean the Fishing Beach area.

MK: The Fishing Beach that is now gone. Was this a fun or boring place to be working?

BM: Was it a what?

MK: A fun or boring place to be working?

BM: Oh, no, no. There was always something new going on. It was really interesting. First of all, you are dealing with a relatively or working with a fairly high caliber type of person. Most of them were engineers some of them (inaudible) We knew what was pretty well going on in the world, but we didn't talk about what we were doing. And I should add that when I came back, I started to, when I came back from Washington I had a new job writing the instruction book on the SCR-268, which I did over the next couple of months. Then I started which was fairly, which became a good size instruction video section. And when I left to go into military service in September of '43 which was a year and a half later, almost two years later we had about 35 civilians and one lieutenant who again was not really in charge who I considered nothing but a troublemaker and probably while I wound up in the service. But again, that's way back. That shortly by the way in addition and I should mention this although it's a personal matter, I became active, I found the Signal Corps did not have any standard pattern for writing tech manuals or other data for the equipment we were developing. And I also found there was a small instruction book section at Fort Monmouth which I could tell had been in existence for several years being run by Stewart Oliver. He died shortly after the War so it was a memory situation. But between the two of us, Oliver and myself, we worked out a set of requirements for technical literature for use with Signal Corps gear. And we also wrote the job descriptions for the Civil Service requirement for the technical writer which was not existed prior to that time. We also were both on a panel to examine employment requests for jobs as technical writer. So we did a lot of work together coordinating the work of the two groups, the one at Monmouth and Evans. And shortly after I went into military service the two were combined and became the Signal Corps Publications Agency, the SCPA. And that exists today with one title or another. It's a very active organization. And they were we had a number of women working for us, both of the original organizations which of course became part of the organization.

MK: Tell me about your decision to join the service.

BM: Well the decision was rapid.

MK: There you go. That makes it easy on you I guess.

BM: Well, it didn't make it easy. I did wind up though in good hands. In the course of the month or so before I actually was drafted well actually reported for duty, reported for

swearing in, I had told a number of people who I knew I was going in. And one of them included a fairly high level individual at aviation laboratories at MIT. (inaudible) He had under his jurisdiction and instruction book activity for sets that they were developing. Or that they had developed and turned over to the services. In any event, this gentleman called me one day and said, "I hear you are going to be drafted." And I said, "Yeah." He said as soon as you get a serial number and you get to wherever you are going to be inducted call me up and I'll see if I can't arrange to get you into some activity where, you know can use your knowledge.

(tape ends abruptly)

END OF INTERVIEW