NASA HEADQUARTERS ORAL HISTORY PROJECT
EDITED ORAL HISTORY TRANSCRIPT

HARRY O. LARSON, JR., AND DAVID W. MYERS
INTERVIEWED BY JENNIFER ROSS-NAZZAL
GALVESTON ISLAND, TEXAS – 29 JANUARY 2020

The questions in this transcript were asked during an oral history session. Mr. Larson and Mr. Myers have edited and revised their answers. As a result, this transcript does not exactly match the audio recording.

ROSS-NAZZAL: Today is January 29th, 2020. This interview with Harry Larson and David Myers is being conducted on Galveston Island for the NASA Headquarters Oral History Project. The interviewer is Jennifer Ross-Nazzal, assisted by Mark Seeger and Randy Thuesen. I want to thank you both, David and Harry, for taking time today out of your schedule to meet with us and do this oral history interview. We're very much looking forward to hearing what you have to say.

I'd like to start today by talking about your childhood. If you would just briefly give us a history of that. How you became deaf, and why you chose to come to Gallaudet University [Washington, DC].

LARSON: I became deaf at the age of six while I was still in the first grade from spinal meningitis. What happened was really something pretty much overnight and sudden. I woke up in the hospital. I was not sick or anything before that, I just woke up in the hospital one day, not knowing where I was. I remember seeing my parents and my sister outside of the hospital through the glass window. They were not permitted to come in my room because I was contagious.

After that, I started to go to the Wisconsin day school system for deaf children. All the kids were of different ages, but they were all in the one room or two. We had one teacher who would teach various grades. I was in this system for about 10 years. I didn't learn much during that period of time. There was no sign language, just learning through speech and oral methods. I got considerably behind in my overall education.

When I was 16, I learned about the Wisconsin School for the Deaf and decided to enroll. The school was located in Delavan, which was some 350 miles from home. It was at this school that I first started to learn sign language and made great strides in the courses that they offered. Attending WSD really changed my life because three years later, I managed to qualify to attend Gallaudet College. The reason I went to Gallaudet was because there was no other college for the deaf at that time.

Gallaudet had a prep program, so I attended Gallaudet for five years. The prep program existed because many of the state schools for the deaf were somewhat behind the normal curve at that time. State schools for the deaf didn't have proper English curriculum, because a lot of deaf children used sign language and often don't fit in well with the use of normal English skills. I grew up knowing English fairly well, thanks to the huge amount of comic books available at the time. This really helped me improve my English, and I'm really thankful for that, because it was the golden age of comic books during the 1940s and 1950s.

Attending Gallaudet was a different world for me entirely, because many kids came from different states and used different type of signs in communicating. It was a shock to see students signing in different ways. It definitely took some time to get used to that, but it was an enjoyable experience during my time at Gallaudet. I eventually decided to major in mathematics.

Some months after graduation I managed to land a job with the Coast and Geodetic Survey, which was based in the Commerce Department of the federal government in Washington, DC. Before I graduated, the Navy at the Naval Aviation Medical Center in Pensacola, Florida, came to our campus at Gallaudet in the spring of 1961. Word got around campus that the Navy was looking for candidates for their research program, and I thought, "Okay, well, why not sign on? It might be fun; it might be a nice adventure." As it turned out, I was one of seven students selected along with three faculty members.

ROSS-NAZZAL: David, what about you? Why don't we get your childhood and how you became deaf and why you went to Gallaudet and why you decided to apply for the team?

MYERS: I became deaf at the age of eight. What happened is that one morning I got up, got dressed, ate, went out to wait for the school bus to come and take me to school. While I was waiting, I started to feel sick. My brother was with me, and he thought it best that we go back to the house because I wasn't feeling well.

When we went back, that was about eight in the morning. By ten o'clock that same morning, my mother called an ambulance to take me to the hospital. The illness came on very fast, very suddenly, very rapid, and at the hospital they found out that I had spinal meningitis. This was before the advent of penicillin. They used sulfa drugs to treat the meningitis, which was not as effective. I was in a coma for two weeks and was not expected to live. But I did pull through. I was in the hospital for about a month and then about another month after that before I went back to school.

In the meantime, I lost my hearing, and my parents were then faced with me in this situation. They put out some inquiries about the state school for the deaf, plus a couple of oral programs. Then finally the principal at my school, who lived in my neighborhood, stopped at our home one day and talked with my parents. He urged my parents to leave me at my school and to give them a chance with me to see what happens. If I succeed, great, if not then to consider other options.

So I stayed in my school. I was in the second grade at the time. I continued through the elementary grades and went on to graduate from high school. This was a school with very low turnover of students and teachers. Some of my teachers taught my brother and my two sisters before me, and I graduated with most of the students who I was with in first grade. The principal and some of my teachers lived in my neighborhood. I had a lot of support, and I cannot complain at all about the school experiences of my youth.

In high school, I was the captain of the football team and on the basketball team. In my senior class, I was voted most popular, best all-around, and most athletic. I had a great experience.

After graduation, I followed my brother to the University of North Carolina. Once there, I was the only deaf student enrolled in the university. They said I was the first deaf student that they ever had. But again I got a lot of support. The director of admissions became a friend and supported me through my two years at the university. I joined a fraternity and lived in the fraternity house. It was a good life, a good experience. But I was frustrated with the classes as some of them were big, 50, 75, or 100 students. Some of the professors were very supportive and helpful. Then I had one or two who were just the opposite; one actually told me that he thought I should not be in his class. I got myself moved to another class as a result.

The summer between my two years at the university, I was at home and dating a girl that kept her horses at stables owned by a family that had a deaf daughter. She had been a student at the North Carolina School for the Deaf in Morganton and had enrolled at Gallaudet College in Washington, DC. I met the deaf daughter, and she told me all about Gallaudet and invited me to come for a visit. I did follow up by visiting Gallaudet.

Thereafter, I decided that I would transfer to Gallaudet. I started at Gallaudet in the middle of the year, which was January 1958. I was one new student entering in the middle of the academic year. I knew no sign language at all, so every eye was on me as that one new student who couldn't sign.

I must admit it was rough going for me at first. It was a very different environment, but I was learning and trying to fit in. I especially appreciated going to classes and being able to follow the professors. Even with my not knowing sign language it helped me with lip-reading, and I was able to understand and getting good grades. At the same time, I was feeling that I was not exactly fitting in.

Toward the end of that first semester at Gallaudet, I went to the dean of students and told him that I had decided that I would not return to Gallaudet in the fall. A few days later, I got a note from the wife of the president of Gallaudet. She wanted to see me. So I met with her, and sure enough, she was there to talk me out of leaving Gallaudet, and she succeeded. To this day, I thank her for that. I really do.

The best decision that I ever made was going to Gallaudet and staying at Gallaudet. I graduated in 1961. Looking back on my Gallaudet experience, the academic part was not very challenging, but then being able to understand the classroom lectures contributed to that. What was really important for me was to make an adjustment to my deafness and learning sign

language. I was finding my place in the world and especially so through the contacts I made there. To this day, those contacts have provided me with so much support; they have been so very helpful.

I went to Gallaudet with no idea of what I wanted to do in my future. While I was there, during my junior year, I met a deaf man who was on the Gallaudet board, Dr. Boyce Williams, who was with the Department of Health, Education and Welfare, Rehabilitation Services Administration. We just happened to meet while he was on campus for a meeting, and we had a dialogue during which he invited me to come visit him at his office. I followed up and did visit him, which resulted in the beginning of a friendship, and he went on to become my mentor.

Because of the influence of Dr. Williams, I decided on a career in rehabilitation work with deaf people. After graduating from Gallaudet, he arranged for me to get into rehabilitation counselor training at the San Francisco State College in California. I started there in the fall of 1961. This was before colleges and universities were required to provide interpreter services for deaf students.

I started out with what was another journey. I thought I was doing well in the program, but my faculty adviser called me into her office one day and told me that I would have to stop reading in class and start paying attention to her. Though I was a pretty good lip reader in one-on-one situations and could lip read my advisor quite well, in classroom lecture sessions that sometimes included discussions, I was unable to rely on my lip reading skills. I would make good use of my time in class by reading the textbook. My adviser would not accept my explanations and told me that I would have to stop reading in class and start paying attention. From there on, I had to pay attention, and I learned to sleep with my eyes open if you know what I mean.

During the second semester, one of my classmates, a paraplegic, told me that one evening after class a group of my classmates went out for a beer, and the professor for that class joined them. I was not among the group. While they were talking and drinking beer the professor raised the situation of my involvement in the program. He said he felt that a deaf person could not function effectively as a rehabilitation counselor.

That was an eye-opener for me. It really bothered me a lot. I went to the head of the department and explained the situation I was in. He was shocked and was quite disturbed. This was near the end of the year and he, the head of the department, was planning to go on sabbatical leave for a year. He advised me to wait for his return, as I needed his support.

I decided to suspend my education, and I went back to Washington, DC, and got a job. I intended to wait for him to come back, but he never came back from sabbatical and I never went back to San Francisco State. Several years later, after working for five years as a rehabilitation counselor for the deaf in Indiana, I was selected for enrollment in the National Leadership Training Program at California State University in Northridge, which was a program that did provide interpreters. My involvement in that program was again influenced by Dr. Boyce Williams, who encouraged me to apply and whose office funded the program. I got my master's there, and it was an extremely rewarding experience.

LARSON: I also went to several other universities after I started working for the Office of Research and Development. I enrolled at American University [Washington, DC] and took geology classes for my job, and I also attended George Washington University [Washington, DC] for various geology related courses. I also faced similar issues that David mentioned, where there were no interpreters in that time, so I had to rely to a great degree on notetakers and asked

other students if they wouldn't mind taking notes for me using carbon paper underneath their own notes. That helped me during the processes of taking the classes, but it was kind of strange sitting in the class really not knowing what the teacher was saying at all. Not exactly an ideal time to be a deaf individual in college.

Things are different now today though with interpreters in the classroom and with the advent of a lot of technology. We did not even have interpreters while we were working with the Navy during the various experiments. We relied on handwritten notes, but that was somewhat limited. We were involved in a lot of tests. We were not told about the results until we got the published report. Being quite technical in nature, it was difficult to know what the results meant.

MYERS: I should also mention that when I was a senior at Gallaudet, President [John F.] Kennedy was running for president at the time, and I wanted to get involved with his campaign. When I came back to Gallaudet in the fall, I went downtown to the Democratic National Committee Office and applied for a part-time job and was fortunate to be hired.

It happened that the man who hired me was a close friend of Robert F. Kennedy, and this enabled me to become acquainted with Kennedy. I worked until the election and then got another part-time job with the Inaugural Committee.

Then after I graduated, as I said, I went to San Francisco State for that year. After my return to Washington, DC, I worked in Robert Kennedy's office for two years, while he was the Attorney General of the United States. It was a great experience, a wonderful experience.

Now looking at the NASA involvement, as Harry experienced, we were both seniors in 1961 when Dr. [Ashton] Graybiel came to Gallaudet University to screen for students having a labyrinthine defective [LD] condition, and we both were selected along with—

LARSON: Five other students and three faculty members.

MYERS: Altogether there were 11 of us. One of us was in Florida, and 10 of us were connected with Gallaudet University—7 students and 3 faculty members. That's how we got started. That summer of 1961, we all were summoned to [U.S. Naval School of Aviation Medicine] Pensacola, Florida, for our first involvement with the program.

LARSON: That summer in 1961 working for the Navy in Pensacola was my first job. I was still looking for permanent employment, but the Navy called me to come down to Pensacola in July, so I made arrangements to fly down there, and that's when we started our first assignments and got involved in various experiments. In the coming years, I received letters from Dr. Graybiel from time to time, asking me to travel to Florida or some other geographic location for special testing. I was able to get time off from my job, but at first my boss did not want to permit me to go. Eventually higher ups got involved and made it possible for me to participate

MYERS: In terms of my own experience, in 1961, after I was working in Kennedy's office, when I explained what I was involved with, they were encouraging me, "Go, go!" They didn't even dock my pay while I was gone. I was still on the payroll. They were very very supportive and encouraging. I remember JFK was wanting to get a man on the Moon. That was the goal.

ROSS-NAZZAL: Would you tell us about the evaluations that were conducted at Gallaudet to determine who Dr. Graybiel wanted to select for the test?

LARSON: We went through a variety of different testing. Eye tests, I believe there was a rail walk test.

MYERS: Yep.

LARSON: Blood test, blood pressure, anything related to that. I can't remember everything, but we went through quite a lengthy process. I got word that I was selected through the mail. Dr. Graybiel sent me a letter indicating when we were to start.

MYERS: There was one of the tests that you might have missed that was called the caloric test. They would shoot water into the ear.

LARSON: I remember that one.

MYERS: They would start with warm water first, and then while they watched your eye movements, they would continue to increase the coldness of the water. They would get the water colder and colder. It got to a point where you would start to feel dizzy, and then they would get it still colder and colder, 'til it became painful. I would say, "Okay, stop, enough." That particular test was critically important because it showed that my inner ear was not functioning. That cold water normally would make a person very, very sick; the temperature that I was able to tolerate would make any other person very sick. That's really how I passed the test, if you will, the screening to see that they had individuals with nonfunctioning inner ears.

LARSON: Yes, I remember that now.

ROSS-NAZZAL: That sounds extremely painful. You told us that you would receive a letter from Dr. Graybiel about the test. How far in advance would you be told about the opportunity to participate, and did you ever decline a test?

LARSON: Not too long, because I remember we went to Florida. I think it was in July. The Navy came to Gallaudet, I believe some time around March or April. Then we graduated shortly thereafter, after getting the letter notifying us and inviting us to go to Pensacola.

MYERS: We didn't decline, not that I know of. Each time they needed us, they would extend an invitation, but we didn't usually have a good feel for what we were getting involved with. We didn't understand very much until we got there and started to see and understand what was going on. But, it's important to understand we had no interpreters at that time as everything that was communicated on site was through pencil and paper. In order to start a test, they would give us instructions on what they wanted from us. That was one of the reasons that they came to Gallaudet. Previously they were looking for individuals in Florida that they could use, and they had brought some individuals to Pensacola. That included Bob [Robert] Greenmun. He was the eleventh person. There were 10 of us from Gallaudet, and then the eleventh was Bob, who was a person from a Florida group previous to our arrival.

They were looking for more individuals to get involved. Bob was the person who sent them to Gallaudet. He was a teacher at the Florida School for the Deaf, a Gallaudet alumnus

himself, and he sent them to Gallaudet to seek out more participants. With Bob joining the 10 of us recruited from Gallaudet, we became the Gallaudet 11.

LARSON: You know, I think I remember that was one of the reasons that Bob Greenmun recommended to Dr. Graybiel, "Come to Gallaudet College," because he needed people with more advanced educational backgrounds who would be able to communicate with Navy personnel more accurately.

MYERS: For the testing that we were going through, it was very important that they got good feedback from the participants, from us. That feedback had to be in writing. We could write, and we could explain our feelings. They needed individuals who could express themselves well in writing.

ROSS-NAZZAL: How did you get from Gallaudet to Florida? Did you take a naval transport or jets, train, car?

LARSON: We flew. I have to admit that was my first time on an airplane.

MYERS: Likewise.

LARSON: I always took the train from Superior, Wisconsin, when I traveled to Washington, and that was my first time on an airplane. Flying wasn't very common in those days. This was

before the interstate highway system was built. Most of the roads in the early 1960s were just two lanes wide.

MYERS: The first summer I flew. After that sometimes I would fly, and sometimes I would drive. They would call us to come, and sometimes it was just for a few days, and sometimes for weeks. That first summer I think it was for about a week.

LARSON: Three weeks one time.

MYERS: Oh yes, not that first summer though. But later, maybe the second or the third summer, yes. Three or four weeks. With the extended time, I would often drive from my home in North Carolina, but it would depend on how long we would stay. For more than one summer we would stay for two, three, or four weeks. I would drive those times, but if there were short periods I would fly.

LARSON: Usually it was during the summertime mostly, except for when we went to Nova Scotia. That was in the middle of February, smack-dab in the middle of wintertime.

MYERS: When we would go to Pensacola, they would usually have more than one project for us to participate in. We would go over here and do testing with one individual staff person, then go over there and do another test with another staff person.

We didn't always know what we were going to be involved with. Again no interpreters. We got instructions about what we were supposed to do. Sometimes we would participate in

different tests, here and there, and then much later, one or two years later, we would actually get a copy of the project report and then better understand what we were involved with. We did not always know exactly what was going on.

ROSS-NAZZAL: Would you tell us about that first trip to Pensacola, what you saw? David, I think you mentioned that there were monkeys. Who did you meet with? What was your experience like that first week?

MYERS: That first summer we had lots of balance testing. I can't recall exactly what we did, but it was focused on balance testing, walking on rails.

Back to the monkeys that you mentioned, previously they were doing experiments—and you may have heard of the monkeys Abel and Baker who went up into space. They were there. All of our testing was done in one particular building. The building next to us is where they kept the monkeys, and those two, Abel and Baker, were right there in the next building.

ROSS-NAZZAL: What are your memories, Harry?

LARSON: Oh, well, it was my first real experience with humidity. Up in northern Wisconsin where I lived, we didn't have that type of humidity, but in Florida, my goodness, drastic contrast. As soon as we landed in New Orleans on a stop-over, when they opened the plane door, all this huge wall of humidity came in. It hit me, and I said, "Oh my God, I didn't realize it was like this in the South."

One nice thing I did like about Pensacola was the white sand beaches. Incredible.

ROSS-NAZZAL: It's a beautiful area.

MYERS: Those were nice beaches. We made use of those beaches during our time off.

ROSS-NAZZAL: Did you have much time off?

MYERS: Not really. We didn't work on weekends. But throughout the days—well, we had a lot of time off, but we were stuck at the base. Understand that between the tests, we would just wait and wait and wait for them to call us one at a time and take turns. It's hurry up and wait, hurry up and wait.

LARSON: Yes, that was Navy motto, "Hurry up and wait."

MYERS: I read a lot of books while I was waiting. I think it was the second summer that we got involved with zero gravity and those experiments in the Air Force planes. Those planes, the Air Force brought them to Texas, and they used their special equipped planes to achieve zero gravity experimentation.

The first experience that I was involved with was at the naval air station, and then we went to Eglin Air Force Base. I think it was about an hour's drive from Pensacola, in eastern Florida. We went there, and we went through survival training, decompression chambers or rooms. We learned how to use a parachute, and I was issued dog tags. [Shows tags]

ROSS-NAZZAL: Oh, you brought them. Wonderful. Did you get dog tags as well, Harry?

LARSON: No, I sure didn't, no. It was a different time.

MYERS: That first time, I don't recall how many of us were involved. He might have had a conflict. I don't recall how many of us went through that training at Eglin. I was there, and I think maybe I'm one of the very small number of civilians who got those dog tags from the military.

I went through that initial training, and then we started the zero gravity flights. That was a plane, it was a propjet, and that was the first summer. That experience was in a propjet, and I think it was two props. It was maybe like 27 seconds of zero gravity. We would be on the parabola flights. During the turn, the pull of gravity would equal one up and one down, so we would be at zero gravity, and we would float. That was a wonderful, wonderful experience.

Then over the next two or three summers we were involved in other zero gravity experiments with the big [KC]-135, the bigger plane, a Boeing 707 plane. The plane was specially equipped for zero-g purposes. It was very reinforced and very solid as a plane. There were lots and lots of those experiments after that. I got a certificate saying I'm a member of the—I can't recall exactly the wording, but to prove that I was involved in the zero gravity process.

LARSON: We also went to Wright-Patterson [Air Force Base, Ohio] for the same thing, those parabolic flight paths. I really enjoyed that weightless experience.

ROSS-NAZZAL: What sort of experiments would you perform on board the plane itself?

MYERS: That's the hard part. We're talking about more than 50 years ago, so I'm trying to think of exactly what we did. There were many different projects. Some of them would be in aircraft. Some would be on land. So many different experiments. They would give you equipment to use, and it would be hard for us to separate what we did exactly where we did it. That's a difficult thing for us to describe, but the tests all had to do with motion sickness, with balance, etc.

LARSON: Yes, I suppose the Navy wanted to know how we would feel after that experience. But, we felt fine. Didn't really bother me in any way.

MYERS: We had to answer questions. We would have to describe in writing how we felt, what our experiences were. Also, the important thing to remember is we never got sick. We would be going through these experiments, and there was always another group of hearing people that would go through the same experiments. The hearing group would be compared against our results.

That hearing group didn't go through the testing at the exact same time we did, they would do theirs at a separate time. When we were there, we got the full attention of all of the researchers. It was our time. They were always comparing results, and we were the control group.

LARSON: One year during 1964, in February, the Navy decided they wanted to test us for seasickness, so they made plans and arranged for us to go to Nova Scotia and get on a boat, a wooden-hulled boat. The name of the boat was called the *Miquelon*.

MYERS: The *Miquelon*.

LARSON: Right, that's it. So anyway, there were 10 of us involved. The eleventh (Ray Piper) was teaching in West Virginia and couldn't get time off because it was during the school year. If I remember, we went to Andrews Air Force Base [Maryland]. We boarded a Navy plane, flew over to Nova Scotia, and then the next day we got on the boat in North Sydney. We were headed to Saint-Pierre, which is a French island about 200 miles to the north and east of the coast.

One of the reasons the Navy selected that area is because it is known for especially rough waters, rough seas. Surrounding the Saint-Pierre region approximately 600 ships had previously shipwrecked and sunk. They picked that time in February because they felt it was a good time for bad weather, so we went then.

When we were enroute to Saint-Pierre the waters were very placid and calm, completely uneventful. We arrived at the island and stayed there about four, five days, waiting for the storm to develop. Sure enough, I think it was the fourth or fifth day it looked like the Nor'easter would be finally arriving, so they prepared to go back to Nova Scotia. Got on the boat, and the storm really hit after we had boarded and departed. We had 30-foot waves that were crashing against the boat. We felt tremendous undulation of the waves. Those of us in the group just sat around talking, playing cards, watching the Navy crew who was supposed to be administering those tests, but they were all sick, so they could not conduct any tests on us during that time.

The next morning, when we got back to Nova Scotia, we went on the deck, and my God, the entire ship was covered in ice. It was incredible. Now looking back at that time, I mean we didn't think about our personal safety, but now looking back, wow, that was a pretty dangerous mission to go on. I wouldn't want to do that again, on a wooden boat, of all things, would prefer a Navy destroyer. 😊

ROSS-NAZZAL: Did you have a chance to go as well?

MYERS: Oh yes, oh yes, that was an enjoyable experience. While we were on Saint-Pierre Island we had so much fun hanging around. They had Mardi Gras at the time, and so we went to their Mardi Gras dance. The trip back was not so enjoyable, as it was so rough as the boat navigated through that storm and the swells of the sea. It would fall with a thud every time the waves would swell and then subside.

We would play cards, and the cards would fall off the table. It was hard to do much of anything. You couldn't really read a book because of all the motion. It was a long evening. Looking back, wow, it is something to remember.

And nobody got sick, nobody from our group. Dr. Graybiel had arranged for that trip and had contacted the captain of the ship. It was like a 30- or a 40-foot vessel, like a cargo boat that they would use to bring supplies to the island back and forth, back and forth from the mainland. Dr. Graybiel had explained to the captain that we've got a group of deaf folks who we're experimenting on, that they are looking at motion sickness, and we never got sick.

The captain made a deal with Dr. Graybiel. A case of Scotch whiskey would go to who would win the bet. He said, "I'm going to make them sick." Dr. Graybiel won as he knew we would not get sick, and in fact none of us got sick.

ROSS-NAZZAL: He had that secret knowledge, right?

MYERS: A few years later *National Geographic* magazine wrote a story about Saint-Pierre, and in that particular story they mentioned our story about being involved on that vessel during that stormy trip. They explained about the rough seas in the area in the wintertime and so on and our particular story.

LARSON: Graybiel should have left some of that Scotch whiskey with us!

ROSS-NAZZAL: You didn't get a chance to share in his booty?

LARSON: No, but I do remember I bought two bottles of Scotch whiskey along with a bottle of Grand Marnier. I still have the bottles and have never opened them. I'm wondering if I could still drink it now. It might be worth something on today's market.

MYERS: Normally Dr. Graybiel would be with us on those trips. For that particular trip, he was on the list of people expected to go, but NASA called him to a meeting in Washington, so he could not make that trip. I bet you if he had stayed with us and had been on the boat coming back he would have been sick just like everyone else, but he would have gone ahead with the

experiments. He was known for easily becoming sick but persevering with his work even though he was sick.

LARSON: That was one of the best experiences we had, and part of the reason that I decided to apply at Gallaudet University for this, for the adventure part. I wasn't really that interested in the results because what good would it do me?

ROSS-NAZZAL: Was there a sense of camaraderie and friendship amongst the group that was selected?

LARSON: We did develop some bonds, yes, and the group was made up of different age guys. Bob Greenmun I think was 48, 49. All of us were from the classes of '35-'64, so we were mostly different ages. But we did stick together despite the age difference in the group. What did help a lot was we did have good times and a lot of fun together.

ROSS-NAZZAL: It sounds like it. Did you play pranks on one another during some of the experiments or during your off time?

MYERS: Oh yes, well, you know.

LARSON: I remember that they had the water thing on—they were teasing us about something in the water. Do you remember that, David?

MYERS: No, I don't; I don't.

LARSON: That was something.

MYERS: Another test that was very interesting was the CAP, the Coriolis Platform, the CAP, that was a room that would rotate. It was a room with a refrigerator, a kitchen, bathroom, shower, everything that would allow us to live in that room. We lived there for 12 days and rotated at 10 rpms [rotations per minute]. The idea behind that was that NASA was considering designing a spacecraft that could indeed rotate.

The concerns were if men would be able to survive in zero gravity, and what would be the impact on body functions. They were trying to create artificial gravity, if you will, by rotating the facility, and that might result in a quarter g [gravity], not pulling down but pulling out, because of the rotation of the room. That quarter of a g was a little bit of gravity that would contribute to the body's state of not having gravity if you will and putting some gravity into the situation through that rotating room, constantly rotating for 12 days, all day and all night. We ate and slept in the room while having blood drawn and EKGs [electrocardiograms] every day, and we had to save all of our urine, etc., etc., etc.

LARSON: We had a lot of mental tests done on us also. We preferred to stay close to the center because there was less gravity pull. If you're on the outer edges of the room close to the wall of the CAP, if it were like this room, I think it was about the size of this room, imagine this were rotating. In the center it was like zero gravity pull, but if you were close to the wall you could

feel the pull even more, so everyone settled toward the middle where there was less gravitational pull.

At night when we slept we used sleeping bags that were arranged around the middle in a circle, like the spokes of a wheel, so that we could sleep comfortably.

MYERS: The first two or three days we had a hard time walking in the room, and the pull of gravity was such that we could stand straight up in the center, and as we moved away from the center, we had to adjust our body tilt to accommodate the outward pull of gravity. We had to learn different modalities of motor location, with our place on the floor, where we were in the room, and make adjustments.

LARSON: One interesting thing that I didn't realize was that the room rotated clockwise and counterclockwise as well. It rotated in different directions. I couldn't feel the difference because there were no windows in the CAP. You couldn't tell. One thing was fun. We were playing with a ball. When you would toss the ball it would curve, so I thought oh, okay. I thought that was a neat thing.

MYERS: If you were going one way or going the other way, we would stop twice a day. Once was in the morning, for bringing supplies into the room and whatever we needed. Bob [Robert S.] Kennedy, the staff person assigned to that experiment would come on board in the morning and stay with us throughout the day. In the evening we would stop again, and he would leave; then we would again get restocked with supplies, submit to hastily done blood draws, etc. One stop we would go in one direction, the next stop we would go in the opposite direction, so that's

how they would change the directions for us. We didn't have any indication that the direction changed.

LARSON: That was another big special test that both of us were together on that. When we were with two—

MYERS: Four of us.

LARSON: There were four of us. I think that was the only time; there were no other tests like that.

MYERS: I believe so. I believe so, Harry. There were more than four most of the time. But that particular one was limited to four.

LARSON: One special experiment that I was involved in myself was being tied up to a post, vertically to a post. I would stand up and was tied to it by what they called Velcro. That was something new at that time; I had never seen that before. It helped hold me together to the post and really helped keep my back from hurting.

I stood there for about 6 hours and every so often the person or tech would come in and take pictures of my eyes. This went on for 6 hours. It was one tough experiment for me.

ROSS-NAZZAL: Standing for 6 hours in a rotating room sounds very difficult.

LARSON: Oh, no, it wasn't rotating that time.

ROSS-NAZZAL: Oh, not in the rotating room.

LARSON: It was just a regular room, this particular one.

ROSS-NAZZAL: Did you make meals in the CAP? Or did the Navy bring in food for you? Were you expected to perform chores like that, housekeeping?

LARSON: They brought in food; I think they just heated up something for us, right, David?

MYERS: Yes, and we did some cooking as well, yes. Not a lot of cooking, but we had good food. Bob Kennedy was the cook.

ROSS-NAZZAL: I wanted to ask about him. Did he get sick in the room?

MYERS: No.

LARSON: Not that I knew of, no, 10 rpms really isn't that bad apparently.

MYERS: He was one of those people who did not get sick easily. It varies from individual to individual. Some people very easily become sick. Bob, like most of the astronauts, I don't know about all of the astronauts, but I'm sure that they had to be somewhat resistant to motion sickness

or else they wouldn't have been selected. I don't think that anybody except our group was completely immune from motion sickness.

LARSON: I think the ability to communicate was the key. The bioastronauts could have gone up to space, if the technology was available at that time. We could do it for sure now. Communication is a lot better as far as technology goes nowadays.

ROSS-NAZZAL: When you came off the platform did you suffer any ill effects? Did it take a while to readjust to not being in a spinning room?

LARSON: We had a picture taken of our faces. Most of the time we looked fine.

MYERS: We would have what they call sea legs for a day or so, but nothing that was really disruptive. No.

LARSON: Just happy to see the normal world again.

ROSS-NAZZAL: How long did you stay after the experiment to have people monitor you and your activities?

LARSON: I can't remember. David, do you remember? Maybe a day or two.

MYERS: Not much of that monitoring afterwards.

LARSON: Yes, because remember, I took two weeks off from work, and I had to go back to work shortly after.

MYERS: Yes, all during the times that we were there they were doing different tests, different projects. One of the staff would focus on the eyes. Another staff member would focus on balance. Another person, etc. All throughout these experiments, as I indicated, we donated enough urine to float a ship and enough blood so that I looked like a drug addict because of all the needle marks on my arm. We had lots and lots of EKGs, and back in those days EKGs were done all over your body with tape. I would have hair on my chest, and I lost a lot of that hair through all of those EKGs when the tape was removed.

LARSON: I remember that.

MYERS: They would focus on how motion impacted different parts of the body. Your heart, your mind, your eyes.

ROSS-NAZZAL: Was there one experiment that you didn't like or that you enjoyed while you were on the platform?

LARSON: The blood part was not fun.

ROSS-NAZZAL: Can imagine.

MYERS: Not a motion test per se, but one day, we were given a dose of ipecac, that's the medication that's supposed to induce vomiting. It did not work. It did not make us throw up, but it made us feel awful inside. We could not get it out. That pain remained inside of us and we could not get it out.

ROSS-NAZZAL: Oh, you were their guinea pigs. I'm so sorry. Did you have a chance to correspond with your family while you were participating in these experiments? If so, what did you share with them?

LARSON: I would write letters. In my letters I'd explain what we'd been doing and what we were up to, that kind of thing. Just normal stuff.

MYERS: I did not do much corresponding or much of that, no. I wish I had had that, yes, so that I could save those letters, but I didn't.

LARSON: I still have a bunch of letters from Captain Graybiel at home. I plan to give them to the archives at Gallaudet at a later date.

ROSS-NAZZAL: Yes. That would be a great resource for historians.

MYERS: Yes.

LARSON: I was wondering if NASA has things like that right now.

ROSS-NAZZAL: Oh, about Gallaudet, they might have something at the [NASA] Headquarters History Archive [Washington, DC]. We do not have anything at the Johnson Space Center Archive about this research. As we were talking about earlier, you are hidden figures. There might also be some items in the Navy's history archive.

There were some other experiments that I was curious about. David, you mentioned an alcohol experiment that sounded of interest. Was curious if you would talk about that.

MYERS: That was another one that was really interesting, and it started with the first day, which was a dry run. We were in a large room, with a circle painted on the floor and then a straight line painted through the circle that divided the circle into two equal parts.

We were blindfolded and, standing on the circle line, we were supposed to walk that straight divider line through the circle to where the line met the circle across the room. They would measure how far off the divider line we were when we got to the other side of the circle. We walked that line every hour for 8 hours, with the measurement recorded each time. That was day one.

Then day two, before eight o'clock in the morning, we had a tall screwdriver, vodka and orange juice, a tall one. How much we drank was determined by our body weight. We had 30 minutes to consume the drink, and then after that 30 minutes we were blindfolded and started a repeat of the procedure from the first day with the same recordings done, every hour for 8 hours.

The result was that with the alcohol our performance actually improved, which was an eye-opener to the staff. Dr. Graybiel would comment saying, "with the alcohol maybe we tried

harder." They were doing that test with the normal hearing individuals as well, and they would be way off the line. Their scores were awful as they tried to navigate that line.

ROSS-NAZZAL: That's fascinating. Did you participate in that study, Harry?

LARSON: I don't remember. I forgot if I was involved in that one or not.

MYERS: How could you forget that experiment?

LARSON: Alcohol made me forget, I guess.

MYERS: It was a good party, Harry.

ROSS-NAZZAL: Did either of you go out to [Naval Base] San Diego to do tests in the centrifuge?

LARSON: David did.

MYERS: I did, yep. I did.

ROSS-NAZZAL: Would you talk about that? I understand that they made a body cast for you.

MYERS: The body cast was for the purpose of keeping our bodies stable, without any movement. Then using the General Dynamics centrifuge, and I believe we were submerged in water in a

tank. Wait a minute. I'm sorry, I'm not sure if that was San Diego or if that was at MIT [Massachusetts Institute of Technology, Cambridge] with the water. MIT might have been the submersion in the water. The use of the MIT centrifuge. Maybe it was. Yes, at MIT with the water. I believe both in San Diego and MIT a body cast was involved.

Anyway, at both places there were centrifuges. We were using their equipment associated with those experiments. Yes, around and around and around. A lot of testing, a lot of testing where the body cast was stabilized and we were expected to then respond to a thin light that would be on the horizontal like the horizon, and we were supposed to keep that thin light constantly at the horizon. If we started to move, it would be noted. They were testing our ability to recognize where we sensed the horizon to be.

[Break]

ROSS-NAZZAL: Before we took a break, we were talking about the trips to Toronto and MIT. David, I think you mentioned that those were both centrifuge tests. I wondered if you could talk about those tests and your memories. I think I mentioned, during the break, the fair.

MYERS: San Diego, MIT and Toronto involved use of their centrifuges. It is hard for me to remember the details of each. I believe though San Diego and MIT involved water tanks built onto a centrifuge. The three basically had the same equipment, centrifuges, but different styles of centrifuges. It seems like every centrifuge was different from the other, but how to describe those differences I couldn't even start. It would help me to answer questions about the centrifuges if I could review the project reports from the experiments at the three locations.

LARSON: One was when we went to MIT that time. Who?

MYERS: Zak had a bad fall.

LARSON: Zak had a bad fall there at MIT. Yes, yes, one bad thing happened to the group during our years there. One of the other 11 guys named John Zakutney, he was in class of '64 in Gallaudet, and he also went to MIT. One night he went out, just to take a look, out to see what, there was the camp, and he saw people playing tennis. He went back to his hotel room. He tripped on something and ended up falling and hitting his head on the sidewalk. …

ROSS-NAZZAL: Did either of you ever ride the express elevator of the Empire State Building? I was reading an article about that.

LARSON: No, that was before '61, that was something before. I think Bob Greenmun was in that one with Polly Hicks. They both went.

MYERS: Yes, that was before our time.

ROSS-NAZZAL: Before we started today, we were chatting and you were talking about Robert Kennedy. Not Robert F. Kennedy, but the Kennedy that was involved in your research. Would you talk about him and the role he played in the research program?

MYERS: He was very close, number one, to Dr. Graybiel. Bob was young at the time and Graybiel was an older man. Dr. Graybiel was mentoring him, I believe. He came into the program not yet having finished his PhD. Bob had joined the Navy. He was a lieutenant JG [junior grade]. That's a lieutenant at an entry level.

LARSON: He wasn't a doctor at that time, he was still in his studies.

MYERS: But to the end we called him Bob.

ROSS-NAZZAL: You became good friends with Bob?

MYERS: Yes, I visited him about five years ago; he lived in Orlando. He had a consulting business and was doing very well. I have a sister that also lives in Orlando, and I was there for a family gathering. I went to see Bob, and he invited me out to dinner with his family.

ROSS-NAZZAL: You also mentioned that he learned some sign language. Would you talk about how you taught him sign language? What sort of things did you teach him? Anything inappropriate, for instance? Just curious.

MYERS: Mostly finger spelling. He did pick up some signs. While it was mostly finger spelling for Bob, that did give him a means of communicating with us.

ROSS-NAZZAL: Would you tell us about some of the other members of the team? I understand there was quite a large team besides Dr. Graybiel. Were there other people that you became close with?

MYERS: Dr. [Earl F.] Miller. He was kind of an egghead. Most of them were. They were very bright people, and they didn't have a lot of personality. Bob Kennedy was down-to-earth, he was a good old guy, we could chat it up with him.

ROSS-NAZZAL: The rest were just kind of by the book?

MYERS: Yes. Dr. Graybiel, he was different too; he was way up there.

LARSON: But we didn't see Dr. Graybiel all that often. He was very busy with other things.

MYERS: We would see him often enough. He would sometimes administer tests, we would have meetings, he would show up, there would be some dialogue. He was not consistently involved with the testing. Interesting, he was a cardiologist by trade, a Harvard Medical School [Cambridge] graduate. Then he became a professor there before he joined the Navy during World War II.

He and Dr. Paul Dudley White wrote a textbook [*Electrocardiography in Practice*] on cardiology which was published and used for years and years. White was the doctor who did surgery on President [Dwight D.] Eisenhower when he was president. He was his doctor, so Graybiel was associated with him. Two brilliant men.

I think that for the human factor he was probably about the top man at NASA on that particular issue. When he joined the Navy and thereafter, he was doing research on the impact of flying on pilots and various associated factors that would interfere with the pilots, especially involving heart issues. Then when NASA came into being, he was diverted over to NASA.

ROSS-NAZZAL: One of the things that I was curious about, you talked about all this time that you spent doing these various tests. Were you ever compensated for the research that you helped participate in?

MYERS: That was like 25 bucks a day, plus per diem. Wasn't it 25 bucks a day? Or was it $20 a day?

LARSON: I think it was around something like that, something, $23, $25 for the per diem. What is it today?

ROSS-NAZZAL: It depends on your locality.

LARSON: The per diem I mean.

MYERS: I'm talking about what we were actually paid, plus the per diem. I think there was $25 in compensation but the per diem was very small back then. The hotels were extremely cheap. We were doing fine. We lived very comfortably.

ROSS-NAZZAL: I was curious about that, if you stayed at Air Force bases, or at the naval air stations. You stayed in hotels.

MYERS: Hotels.

LARSON: We stayed in a nice hotel named San Carlos. It's not there anymore. They tore it down. We stopped by to visit Pensacola about 10 or 15 years ago, and sure enough, it was gone. The hotel was not there. It was an empty lot.

ROSS-NAZZAL: How closely were you following the space program at the time, knowing what you were working on?

LARSON: As much as we could. But remember, during that time we did not have closed-captioning on the television. We relied on reading the newspaper.

MYERS: Yes. We would follow it, but it was not something that I closely watched very closely. Bob Greenmun lived in Saint Augustine, and he really tracked space program happenings. He would follow all of the events there at Cape Kennedy [Florida]. When there was a launch he would go down to Cape Kennedy to watch.

LARSON: One time there was a rocket launch in the morning, and I think he was driving into town. He wasn't paying attention to the railroad crossing that he was about to go over, and a train ended up hitting his car.

MYERS: He died as a result.

ROSS-NAZZAL: That's horrible.

LARSON: That was the second tragedy of the group. Two of them. How old was Bob when he died? I think he was 57, 58.

MYERS: He was somewhat older than the rest of us.

ROSS-NAZZAL: Are both of you married?

MYERS: No, I'm divorced.

LARSON: Yes, three children, a daughter and two boys.

ROSS-NAZZAL: Large family. Did you share with them your experiences? Or is this something that they found out about when Gallaudet did the exhibit?

LARSON: I have to admit I never really did talk to them about it because what was I supposed to say? It was hard to explain and put in words what we were doing. But when Gallaudet did the exhibit there was more to show, so that they started to learn more about what I was involved with during that time.

ROSS-NAZZAL: What about you, David?

MYERS: I'm divorced, but I have a son and daughter and two grandchildren by my daughter.

ROSS-NAZZAL: Did you tell them about your experience?

MYERS: Yes. More so in later years after so much was accomplished by NASA. About 25 years ago I wrote a short history of my NASA involvement at the request of a cousin. That document was distributed to most of my relatives. During the time of the Gallaudet exhibit, some of my family became very interested. My son and his wife came to Washington for the actual exhibit opening, as well as a niece and a nephew and their families. Both of my children live in Texas.

ROSS-NAZZAL: Were they surprised to find this out?

MYERS: They had heard about it over the years. They knew that there were things around the house related to it, pictures, books, etc. They were somewhat familiar, but they learned much more through my involvement with the exhibit.

LARSON: Yes. Like I said too, during that time the media really wasn't like it is today, and still many people don't know about our involvement.

MYERS: I took a lot of pictures. An interesting story about those pictures is when I first went to Pensacola I did not have a camera. I had never owned a camera, and I thought as I arrived in Pensacola, I'm into something here that's pretty interesting. So, I decided to buy a camera. I actually went to a pawnshop and looked around at various used cameras and purchased one, a Leotax, a brand of which I had never heard.

What I didn't realize at the time, the Leotax was made by Leica, which is a huge name in the camera industry. The Leotax was kind of a secondary product but with an excellent lens, no doubt made by Leica. There were always Navy enlisted men around during our experiments so I would have them to take pictures for me, especially when I was busy. The result is that I have a lot of pictures. When it came time that we were going to set up the exhibit at Gallaudet, different individuals in the group had pictures that they contributed to the exhibit and I contributed all of mine. Most of our group had Brownie cameras.

LARSON: Yes, that's what I had, a Brownie. It wasn't that great, and I missed out on getting some better pictures for sure.

MYERS: With my camera and its fine lens, I had a lot of good quality pictures. The exhibit needed pictures that could be blown up to make large poster size pictures for the exhibit, so many of the pictures used for the exhibit were from my camera. With Brownie pictures, they were difficult to enlarge because of the limited resolution.

LARSON: Yes, that's what I was told. Some of my pictures from the Brownie were just too small to blow up. They had a lot of pixelation in them.

ROSS-NAZZAL: A little too grainy.

MYERS: Yes.

ROSS-NAZZAL: Talk about your contribution to the human spaceflight program as you look back now after all of these years. What do you think your contribution was?

MYERS: That is my big question. I have been looking for the answer to that question. I really don't know. I'd love to know. Tonight we have Dr. [James R.] Lackner and then also Dr. Millard Reischke with us. I'm going to ask that question of them.

Dr. Graybiel's research was published all over the world. The Russians, everyone, did a lot of research, and they were using his data. What did his data in which we were involved contribute to NASA and to the world? Things like that nobody really knows. If there could be a research project that could look into that particular question perhaps we could come up with some answers. What exactly did we contribute?

LARSON: Remember Dr. Graybiel says that our group, the LDs, were a big part of his research. I think that we did make some good contributions.

ROSS-NAZZAL: What did you think of his term for you, the LDs, when you read his reports? What did you think of that term?

LARSON: Like I said before, we didn't really use that, but maybe the staff used it between themselves. We as deaf people didn't hear what they said, so it really wasn't an issue. In terms of the way they used it, I think it was a little bit derogatory in some aspects. I thought, "Well, couldn't they come up with a better word?"

MYERS: I think the intent was not negative, and I looked at it from the viewpoint of what the intent was. It was just a word that they came up with. They didn't mean anything negative with that word.

ROSS-NAZZAL: Did you get a chance ever to meet any of the astronauts that were flying on board Mercury, Gemini, or Apollo?

LARSON: No, I don't believe so.

MYERS: Did I mention John [H.] Glenn? Did I tell you the story? Okay, wait a minute, wait a minute, maybe I forgot to mention that. It was about 1990. I was at the Kennedy Center in Washington, DC. I went to an event there at the Kennedy Center, and he was there with his wife. When the event was over I got an interpreter, and I went over to meet him. I started by telling him about my involvement with this research in Pensacola and dropped Dr. Graybiel's name. Before I could even finish my opening statement, he interrupted me and started telling me about his involvement in the very same experiments, the same tests, that we went through. Some of his astronaut training was there in Pensacola. He told me that he himself had gotten

sick many many times, and that he'd heard about our group, that we never got sick and that he envied us. He was such a nice man, an impressive guy.

ROSS-NAZZAL: That's nice that he gave you that tribute at the end.

MYERS: He instantly knew what I was talking about, and I probably was the first person from my group that he had ever met.

ROSS-NAZZAL: We had talked about the CAP, and I had asked if there was an experiment that you enjoyed the most or didn't really enjoy. Was there one experiment overall that you participated in that you enjoyed or really disliked?

MYERS: The zero gravity flight was fabulous. That's an experience of a lifetime. I know that very very few people have that experience.

LARSON: Yes, that was one of the three best things I was involved with, plus the parabola, zero gravity, the Nova Scotia *Miquelon* boat trip to Saint-Pierre and the CAP. Those were the three that really stand out.

MYERS: The CAP in a way was pretty boring. It was interesting, but at the same time 12 days confined to that one room, no TV.

ROSS-NAZZAL: Yes. What did you do for entertainment? No TV.

LARSON: I don't think we had TV on board, and I'm not sure if we got newspapers either. Did we get newspapers, David?

MYERS: I don't think so.

LARSON: I forgot, yes, we would bring our own books to read.

MYERS: Books to read, yes. I'm a big-time reader, so yes, books.

ROSS-NAZZAL: Did you play cards or any games?

MYERS: Yes, we did play cards, not every day, but occasionally we could do that.

ROSS-NAZZAL: Anybody play any pranks on each other while they were in that room?

MYERS: We got along.

ROSS-NAZZAL: Would that be the same case for you, Harry? Was that the most boring or least interesting?

LARSON: We kept ourselves busy. We were busy most of the time. It's not like we were just sitting around all day. We had things to do.

MYERS: But in the evenings.

LARSON: Except for after dinner, we were free after dinner on our own time.

ROSS-NAZZAL: We've got a few more minutes. I wonder if there are any additional comments that you want to make, or any anecdotes that you would like to share, before we close out today.

MYERS: Perhaps I should put in the story about John Glenn. Should I retell that story about John Glenn?

ROSS-NAZZAL: I don't think you need to retell it. I think the way you discussed it is fine.

MYERS: Was that all on tape? That's all on record?

ROSS-NAZZAL: Yes.

MYERS: Oh, I thought it was all off still, I'm sorry.

ROSS-NAZZAL: Oh, no, I apologize, I think once we hit the "clap" we were ready to go, so I apologize. I'm not used to videotape. I'm used to our audio recordings.

LARSON: I might think of something this evening, but right now it's been a long day.

ROSS-NAZZAL: Yes. I understand. I just want to say thank you so much for giving your time this afternoon and spending a couple of hours with us and talking about your experiences. We enjoyed it.

MYERS: Thank you. Thank you and to your team.

ROSS-NAZZAL: Thank you very much.

LARSON: All right. Happy to be here to help out.

ROSS-NAZZAL: Thank you for sharing.

MYERS: Thanks to these interpreters too.

ROSS-NAZZAL: Yes, you did a fabulous job. I think we just need to wait for the "clap."

[End of interview]