

# NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

## ORAL HISTORY TRANSCRIPT

JACK R. LISTER  
INTERVIEWED BY SANDRA JOHNSON  
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JOHNSON: Today is March 19, 2002. This oral history with Jack Lister is being conducted in the offices of the Signal Corporation in Houston, Texas, for the Johnson Space Center Oral History Project. The interviewer is Sandra Johnson, assisted by Kevin Rusnak and Jennifer Ross-Nazzal.

I want to thank you again for joining us today to share your history and experiences in your twenty-nine years working with NASA in the JSC [Johnson Space Center] Personnel and Human Resources Offices. I'd like to begin by asking you about your background.

LISTER: I'm from North Alabama and I grew up in a little town called Gadsden, Alabama. I went to Korea for two years, in the field artillery, and fired Howitzers there. After returning from there, I went back to graduate school at the University of Alabama [Tuscaloosa, Alabama] and taught high school at the same high school [from which] I graduated....

In Alabama back then, they didn't pay much money [for teaching]. I wanted to get married, so I decided to apply for a position in Huntsville, Alabama, with what was then the Army Guided [&] Missile Agency. I took an examination and was hired there, initially in procurement, which I [disliked], and I eventually worked my way back over into personnel management or human resources....

JOHNSON: No, that's fine.

LISTER: My first job there was as a training officer for the Army Rocket and Guided Missile Agency. NASA was [located] there as well. One of the young men who worked for the [United States] Army transferred to the DOD [Department of Defense] in Washington [D.C.] and asked me to [transfer] with him. So I transferred to the Pentagon. [There I was] a small-time GS-11, and I [disliked] that, because no one in the Pentagon is GS-11; everyone is GS-15 [or above]. So I became sort of the errand boy for the office and didn't really have a defined duty or role.

Three months after I'd been [at the Pentagon], one of my former bosses at Huntsville, who was going to be the new personnel director at the Space Task Group, called me and asked me ... [if I would be interested in transferring] to [NASA] Langley [Research Center, Langley, Virginia].... It was a new organization [and] sounded like great fun. So I [transferred to NASA in 1961]....

...[At Langley I joined] the original group that formed the Space Task Group. Actually, when I got there, there were several hundred [already on board].... We didn't know where we were going to [relocate]. The rumors had it that we would go to Portland, Oregon, or Tampa, Florida, or wherever. Houston was one of the ones mentioned, but ... as we all know now, Houston won out, for whatever reasons. I'd never been to Houston in my life, but I had heard that houses were inexpensive [there] and it was a great place to live. So we came down on a look-see tour and saw how reasonably priced the houses were. I had a young family, and we were really excited.

I came down with [Hurricane] Carla in September of 1961, and I couldn't believe the devastation down along Toddville Road. It was really something. I'd never seen a hurricane before, either. But anyway, we loved the housing in Houston. We built a three-bedroom house near Hobby Airport, in a new area, for about \$19,000, which [was] great. I had two small

children [and] had a third one [born] after we came here.

... In 1968, I was selected as Director of Personnel for JSC. It was Director of Personnel then, not Human Resources. It was an unusual move for me, because my entire background was in training, employee development, not in personnel management. And I felt very fortunate, because personnel management is broader and [very challenging]. I enjoyed every minute of it.

... [Prior to becoming the Director, my] basic responsibilities ... [were] to work with the University of Houston [Houston, Texas] and the state of Texas to ... get a graduate study program established in Clear Lake [Texas]. We thought at that time we would have a strong engineering graduate program, because that's what we felt we wanted. Most of the people here were engineers.

But we ran into problems with the state education board and some of the state legislators, because it's very expensive to establish [a new] engineering program ... [so near to] the University of Houston main campus ... [where a good engineering school already existed].

So I was the coordinator for JSC with the university, and we arranged to have graduate courses taught ... in our facilities and in different places. We [contacted] Rice [University, Houston, Texas] as well, but Rice had a residence requirement and was a little more inflexible. So we did most of the graduate work with the University of Houston, but we kept working to get a college established [in Clear Lake].

I was [with] the group that ... met with [Dr.] Phil [Phillip G.] Hoffman [President] at the University of Houston, and a number of people ... many times, to try to get a university established in Clear Lake. Dr. [Robert R.] Gilruth and Paul [E.] Purser, a name you may have heard, were the key players, but I was helping them [and did much of the data gathering].

We finally were able to get the University of Houston-Clear Lake [UHCL], established.

But the interesting thing about it was that it was not an engineering college. It ended up being more of a humanities-liberal arts school. But ... [we were resourceful in getting UHCL] to teach some courses in computer science and higher math and things like that....

Another role that I had, which I considered to be very important in the training area was, when I was first hired at Langley, Dr. Gilruth said, “We want quality people, and every organization needs an input of bright young people.” My primary concentration was to establish a co-op student program, which was sort of unheard of at that time. There were only about three colleges in the United States that allowed ... students to go on work-study programs. [As I recall,] one was University of Cincinnati [Cincinnati, Ohio], Drexel [University] in Philadelphia [Pennsylvania], and [Northeastern University in Boston, Massachusetts].

So we began traveling all over the country, trying to get schools to do co-op training, and we established the first co-op program, with the University of Houston, at the main campus. Eventually, we had up to 300 co-op students at JSC.... The co-op program ... [has] provided a large majority of our key people at JSC today. I know many of them [and they are outstanding engineers and managers]....

But anyway, [the co-op program] was a great program, and it has continued through the years. We had co-op students from all over the country—Purdue [University, West Lafayette, Indiana], VPI [Virginia Polytechnic Institute and State University, Blacksburg, Virginia], Georgia Tech [Institute of Technology, Atlanta, Georgia], you name it. One of the things we ran into was that even from the very early days, there was always a question at JSC ... of how much of the work would be contracted out ... through contractor support, and how much would be done in house.... [This affected our Co-op Program because in house engineering work was necessary to provide adequate training for co-op students.]

Initially, the co-op students were primarily [assigned to] the engineering and science areas. The operations people felt that ... [their activity] was not as conducive to co-op training as the engineering and the science side of the house. ... Later on, the operations group did go into the co-op program in a big way....

When I became Personnel Director, I had a wonderful staff. There had only been two [Personnel Directors] before me. I have the record of being the longest tenured personnel officer [(22 years)].... And I was the one that changed the name of the organization from Personnel to Human Resources. Everybody thought I was crazy to do that, but today that's the [norm]—I also was instrumental in ... influencing Aaron Cohen to ban smoking in all the buildings at JSC. At that time, that was pretty—

JOHNSON: That was a big step.

LISTER: —revolutionary....

I was also on the first two astronaut selection boards with George [W. S.] Abbey when we first began the ... round of astronaut selections in the seventies. We always had more good people applying than [we needed]. In the astronaut selection program, the difficulty was winnowing [down] all the good people [to a remaining few]. I remember one year we had 2,500 applicants and we selected twelve [new astronauts], ... quite a few of them with Ph.D.'s.... The problem was not [in] finding good people, but [in] making sure we got the ones with the right attitude and the right inclinations to be an astronaut. George [Abbey] could tell you a lot more about that.

... I think the reason JSC's been an outstanding organization, is that we always [tried to

maintain a] proper balance [between] the initiative and ideas of the young ... [and] the maturity of the old. We always, while I was personnel director, had an influx of young people coming in each year. And after I retired, that wasn't always the case because of the manpower reductions. For a few years there, in the nineties, ... they didn't have the resources to bring young people in.

I have a definite opinion that every organization like JSC [must] have ... new people coming in to keep [the organization] vital and ... strong. ... [I tried to do that] and I think when I retired, ... we [had] hired [approximately] 11,000 people during my tenure at JSC, [70% of them below the age 30.

JOHNSON: Wow. That's amazing.... We'll go back, and we'll have some specific questions and kind of focus in on some of the experiences you had. First of all, I want to go all the way back to when you were in college the first time. What was your major in college?

LISTER: Well, I'm almost embarrassed to tell you, but it was history and English.

JOHNSON: You shouldn't be embarrassed in this room. [Laughs]

LISTER: Well, human resources [requires] common sense, and [an] ability to deal with people and situations, and planning and initiative and focus. I've always said I think it's great for a young person to major in personnel management, which they do these days. That doesn't [always] make [the graduate] a good ... human resources person.... That gives them the academic information and [tools] they need, but it's equally important that they have a facility ... and an ability to negotiate and work with people. They must love [solving people and

organization] problems as well, because there are plenty of those.

JOHNSON: Did you know when you were in college you wanted to go into personnel or human resources?

LISTER: No, I really didn't. I thought I was going to be a teacher. But when I went into teaching, the high school I went to was a fairly large high school, and I went back and taught with all my old teachers, which was fun. It really was. But they tended to give the new teachers all the assignments that nobody else wanted back then. I was working from seven a.m. till ten p.m. in the evening, and I wasn't paid very much, ... I didn't see any future.

I enjoyed [teaching], but I'm not one of those [who makes sacrifices] ... for the joy of teaching. [Thank goodness], there are a lot of people like that....

JOHNSON: That's right. When you joined the army in [19]'55, you went to Korea. Is that correct?

LISTER: Yes. I was in ROTC [Reserve Officer Training Corps]. Back then, ROTC was—you had to be in ROTC to keep from getting drafted, and the Korean War was going on. I was in ROTC, field artillery, and I went to officers' basic course at Fort Sill, Oklahoma. That's where we fired Howitzers and learned to direct artillery fire on the enemy. We had sixty graduates in our officers' class. [Upon graduating we were given an opportunity to choose where we'd] ... like to be assigned. [Many of us] wanted to go to Hawaii and Europe, [but] we all [were assigned to] Korea.

The Korean War ended just as I arrived [in Korea], which [was] fortunate for me. The field artillery, MOS [Military Occupation Specialty] ... specialty was, [involved in serving as] ... a forward observer in Korea ... [directing artillery fire on the enemy. Needless to say,] I was glad to see the war end when I got there.

But I did spend a lot of time in the DMZ [Demilitarized Zone].... I was with the 24<sup>th</sup> Infantry Division. We were charged with a section of the DMZ, on the 38<sup>th</sup> Parallel, ...[near] Panmunjom [Korea]. Each Saturday we would go into Panmunjom and take supplies, because the armistice that was signed did not allow any civilians to come out of Panmunjom. Others could go in, but none could come out.

So one Saturday we took a bride up to get married [and enjoyed dinner with the villagers].... [Unfortunately], we couldn't eat [the food because of sanitary conditions]....

LISTER: I had a lot of experiences [in Korea]. Once a month I was the duty officer for the entire [American] front, ... for twenty-four hours [each month] I was responsible [for incidents with North Korea]. And they frequently faked attacks and did all kinds of maneuvers that would make [us] think they were [attacking]—the war had just ended so it was not a stable peace, and I was always very glad when those tours were over, because I didn't want be criticized for not reporting something or not mobilizing the troops when it was really necessary....

JOHNSON: You received a medal, an army commendation medal, for your time there.

LISTER: Yes. I had a good commanding officer.



JOHNSON: Well, that's good. Well, after you left, you—

LISTER: He got me out of there a Christmas early, though.

JOHNSON: Oh, did he.

LISTER: Yes. I'd been there two years. I was going to miss my second Christmas. He got me [an] early release [and I arrived home on Christmas Eve, 1956, to the surprise of my family].

JOHNSON: Do you have any other memories about your time, once you came back, and then you began working for the army at the Redstone Arsenal? Do you have any other memories about that time, or can you share with us some more details about what you did there?

LISTER: Actually, I didn't stay in procurement very long. I was buying missile parts for defense missiles.... It was a clerical job, and that's not me....

I had taken an entrance examination for federal service and had [made] a good score. There were three agencies in Huntsville at that time: the Army Rocket and Guided Missile Agency, the Army Ballistic Missile Agency [ABMA], and the Redstone Arsenal. ...All three ... constantly [competing] ... to hire good people.

I didn't like ... procurement, so I applied ... at Redstone [Arsenal for a personnel position] and they hired me ... [very quickly]. That's when I got my basic training in employee development. I worked in a group that [planned and conducted] training for the [Army's Redstone Arsenal employees]....

JOHNSON: During that time before you started working there, Sputnik launched and then NASA was formed. Do you remember any of your impressions during that time?

LISTER: Yes. I knew the people who were working in the Army Ballistic Missile Agency, and after Sputnik was launched, everything began to move [quickly]. Most of those people went over to work for the new NASA Marshall Space Flight Center [Huntsville, Alabama]. So that's why the job was open for me to go into the Army Ballistic Missile Agency. I replaced one of the fellows who went to NASA.

[Later], my boss at the Army Ballistic Missile Agency ... [was] the one who remembered me when he went to [NASA's] Space Task Group, and asked me to [go] with him....

But it was exciting, and I remember President [Dwight D.] Eisenhower came to ABMA one day and spoke to the troops, got us all excited about going into space.

JOHNSON: Do you feel like working for the Army prepared you to work for NASA?

LISTER: Not really, no. I really wasn't there long enough. It did give me some basic training in employee development, running seminars and things, which I did, and that helped me. I guess [someone was] impressed with my work at the Army, to call me to come work for NASA. So it helped me in that regard. I was thrilled to go to NASA because it was a new agency, and I believe ... new agencies have ... more opportunity to do [innovative] things....

JOHNSON: You said you moved to Houston. You moved here in [19]'62 or '61?

LISTER: Actually, we came down on a look-around trip in September, right after [Hurricane] Carla, [in] '61.... Carla [arrived] September 6<sup>th</sup>.... I think it was January [when I transferred] my family [to Houston]. There weren't many houses in this area.... I [worked] in several buildings in Houston ... while [we] were building the center. I was very fortunate to have the opportunity to take a group of professors on a tour of the new site, when I didn't know the first thing about any building on site!...

JOHNSON: Part of your specific duties was, as you said earlier, to recruit people and to get people to come. How did you all attract, or attempt to attract people to start at this new agency?

LISTER: It wasn't a hard sell at all. I mean, we take a lot of credit for it, but, really, space excited people, and it still does. It probably was harder at first, because people didn't know about us. But Sputnik had caused excitement, and then you were working Mercury [Project].... As I recall, we'd had a Mercury flight before we came down here, so people knew about us.

There's a whole passel of people in this country who would work for the space program, in my opinion, not because of salary, but because that's their thing. They like the technical aspects and excitement of it....

It was more difficult to get minorities, because there ... were [few] minority graduates from engineering schools, very few. And [the competition was fierce for] the few that were available, ... [and] companies could pay much bigger salaries than we could. Much bigger.

I would say we got really good people, but sometimes we would lose out on the top graduates at Georgia Tech or MIT [Massachusetts Institute of Technology, Cambridge,

Massachusetts], [and other outstanding schools] simply because [companies could offer] twice as much money.... [But overall, we fared well.]

But generally speaking, we got outstanding people from outstanding schools all over the country. We were getting applications from everywhere. And, of course, we hired almost everybody who applied in the early days, because we built a staff from 800 to 3,000 in a very short period of time, maybe three years.

JOHNSON: And this all happened during a time when there was a shortage.

LISTER: [Yes.] When there was a shortage of engineers, [especially women and minorities. Today], ... there are many, many engineering graduates who are women, but back then, there were not. Women have made a wonderful amount of progress in the engineering field.

JOHNSON: The other thing you mentioned was the co-op program that you started. Did you pattern that after any other agency, or did any of the other NASA areas have a co-op program at that time?

LISTER: ... We patterned the program the way we wanted it. Co-op students then—there were several different versions of the program, like some companies would have what they called a co-op program, but they would go to school for nine months and then they would work in the summers. We didn't want that. We wanted somebody who would alternate work and school experiences on a semester-to-semester basis.

And the only thing we ran into, some schools would not allow that, like Rice or MIT.

They wanted full-time students and they didn't want them being distracted with work experience.... Most schools saw the value in complementing or supplementing work experience with the theory....

What it did for kids was, it would extend their college about a year or two, no more than two years, but when they finished, they would have a better grasp of what engineering is all about. They would know what [engineering] involves and they would have a job, normally, if they were good. So it attracted good people, and it was a way ... to have young people in waiting when we had turnover at the higher levels, when people retired. We didn't have many retirements then, and we did have many years when nobody would leave, so there was [a continuing effort] to get more [manpower] slots from Headquarters through our billet system, to hire our graduating co-ops.

We used [the co-op program] to get more billets, too, because nobody wanted to turn down outstanding kids [who] were going to be our future. And the budget gurus at Headquarters would give us additional hiring capability for co-ops, over and above our normal manpower ceiling....

JOHNSON: And lots of success stories came out of that program, too.

LISTER: Oh, yes. ... [I would say over half of our Branch Chiefs today at JSC were former co-op students.]

JOHNSON: You also created the management intern program.

LISTER: I wouldn't take [total] credit for that. A fellow named Phil [Philip] Whitbeck [helped create] the management intern program. I ran [the program] and I supported it....

...[The Management Intern Program] was a way [of hiring] young people out of graduate schools and colleges who were administrators, not engineers. We'd bring them in and rotate them around the various administrative functions, like procurement, budget, human resources. As I recall, we would rotate them for about six months ..., and then at the end of that time ... [the interns would be given a permanent assignment in a specific administrative are of interest]

We got some really fine people through those programs. They were very carefully selected.... We sent interviewers to different places throughout the country to interview them and pick the best of the lot. There was a written test and a personal interview required. It was a program that was established by the Office of Personnel Management, but our center used [the] program [extensively], because it really produced some good people. Many of our managers [today] in budget, ... procurement, and ... personnel, came through that program....

JOHNSON: You also developed a number of other educational programs while you were there. Why did NASA or your office feel it was necessary to educate the employees there on site and provide these opportunities for them?

LISTER: Well, I think that [it is] pretty obvious in an organization that has objectives like this one. You can't stop learning, especially in engineering, but not just engineering. In the management areas, too.... My belief is that [without education programs] an organization will not stay vital, and it'll become [like] an INS [or just another bureaucratic organization] ....

Excuse me.... NASA has never been like other government agencies... [in that regard but has

always put a premium on educational programs to keep the workforce current].

... JSC had ... an environment back then in some respects like Enron [Corporation]. Not the crookedness and [deceit], but we had a desire to get the best people, ... [and provide outstanding challenges for them]. I heard one of our top managers say one time that nobody had an original idea after age thirty-five. Now, I think that's a little heavy, but young people do have more ideas, and this organization had to keep that influx [of ideas].... I'm not minimizing the need for the experience and maturity of the old, because I'm one of them, but I think you need both [experience and new ideas].

We had a philosophy, and it came from [Dr.] Gilruth and Wes Hjornevik and people like that, who knew that [we] had to keep these new things going, keep new ideas coming. It took a lot of graduate training; it took a lot of emphasis from top management, to value ideas. You not only have to train [employees], you have to reward them and value [their] inputs and ideas. And I think JSC's been really good at [all of those things]....

JOHNSON: You provided space on site for people to attend classes, and had professors come in and teach them there.

LISTER: Oh, yes.... We had classrooms in ... Building 45. We [also] used the [conference rooms] in Building 1 ... [and] Building 4 [for graduate courses].... We had a standing training budget. [As stated earlier], the biggest problem was, we couldn't get Rice to ... [classes in Clear Lake], and the University of Houston would not establish a branch ... here....

[To get a university built in Clear Lake was a different issue.] ... [There] was a great concentration of engineers and scientists [at JSC], but the colleges didn't really [rush to cooperate]—we thought they'd be jumping to come out [to Clear Lake and establish a faculty but we learned that while the universities] ... saw the value in it, ... money [was the main consideration]. Every school has a tight budget, and [schools] weren't ready to drop everything [on campus] and run out [to Clear Lake] and do graduate courses for us....

[Our education efforts] never did really develop the way I thought it would at first. I thought immediately we'd have a big graduate program in engineering, but it didn't work that way. It ended up being a [combination of some] of our people going [downtown], some courses on site, a few courses ... [other places wherever space could be found].

JOHNSON: Did everyone go part time when they were going to school at that point, or did anyone go full time and come back?

LISTER: [Most went part time, but] we had a program where [one] could go full time. We would pay full salary and tuition ... [for a few selected employees each year]. We had to keep [the number] small, because it was very expensive. But we normally would [send someone full time] if we needed a skill in some new ... engineering [or science] area.... I don't remember specifically ..., but there [were] some areas of expertise in the technical areas where we had [little or] no skill, [and] couldn't find any. We'd send guys to Rice—guys or gals, ... or to some school, for a year or two for specialized study].... This organization [(JSC)] was very good about that.

Then we sent a number of people to get doctorates in administration. In fact, the same



person I talked about a while ago, Phil Whitbeck, arranged with the University of Oklahoma to [conduct], a doctorate program [at JSC] ... in administration. We had [several] people who got their doctorates in that area.

JOHNSON: Some of the other programs you developed, you developed or helped to develop a technical apprenticeship program to train men right out of high school.

LISTER: Oh, yes....

JOHNSON: Can you talk about that a little bit?

LISTER: There was a history [at NASA's Langley Research Center of] apprenticeship training.... We're talking about [training] in the trades—machinist, metalsmith, electronics technician. [Graduates] are non-degree people, but they're very highly skilled craftsmen. [Langley] had a history of having a shop ... that was really outstanding, and the people who came from Langley, including Gilruth, felt that we [also] needed to have an apprentice program....

... We set up [an apprentice] program ... [which consisted] mostly [of] work experience, but ... was supplemented with technical [courses].... As it turned out, we probably had the finest machine shop in the world.... And while we didn't build many things [at JSC] (you know, the spacecraft were all built in other places in California, [North American] Rockwell [Corporation] and different places), we would do prototype work, and we had to have the very top skills among our craftsmen to do the kind of prototype work that Gilruth and ... [our engineers needed].

[The apprentice program] was ... fairly small, ... [as I recall, approximately] ... thirty each year were involved in the program. We would pick young men [and women] who were really good with their hands.... Jack Kinzler [Tech Services Division Chief] had come from Langley, so he was a great supporter of the program.... [I have no doubt this program has produced some of our nation's most accomplished mechanics.]...

JOHNSON: Were they required to work for NASA any point in time after that?

LISTER: Unfortunately, the rules would not allow us to [require service]... [so] some of [the apprentice graduates] did leave, because they developed skills that [were needed by other organizations].... But most of [the craftsmen] stayed [at JSC and are still there today]....

JOHNSON: It seemed like an interesting program, and something that's not as—.

LISTER: It was small, but it was very highly selective and very specialized. [The Co-op Program] was much larger....

JOHNSON: You mentioned before, the billets. Through the years, sometimes that number was affected because of budgets.

LISTER: Yes.... The Headquarters would translate NASA's annual budget into whatever would be available for manpower, and then they would allocate the manpower among the centers. One of the big jobs I always had was trying to convince Headquarters to give [JSC] more billets.

They always treated JSC pretty well, because we did have the spotlight on our programs [which many] considered to be the agency's bread and butter.... [Headquarters] would allocate a [personnel] number to us each year and we'd have to live within that, unless we could convince them to increase or decrease [our allotment]. [As stated earlier], we used the co-op program to ... [supplement our permanent workforce, and train young people].

JOHNSON: You said you used the co-op program to increase it. Did it affect the co-op and the intern programs and those kinds of programs?

LISTER: [Fluctuations in manpower ceilings usually did not affect co-ops and interns adversely.] We protected those, but the worst experience I had as Personnel Director came in the seventies, after the lunar landing, when we were required to reduce our billets by several hundred, and I had to conduct two major reductions in force [RIFs]. The government policies back then were primarily that veterans ... [if justified, must be retained over others]. And, of course, [our] managers, ... wanted to pick [candidates for RIF] based on their contributions [and performance]....

So I had the delicate task of negotiating with our managers, who wanted to keep certain people, [while abolishing their ] positions that would result in the least disruption. A reduction in force begins with taking the positions that are to be abolished, and then if [one happens to be] a veteran in that position, he doesn't go out the door. He bumps somebody else who [is subsequently terminated].

Frequently, people [who] got bumped were the ones [our managers wanted to retain].... [Frankly], it was not a fun time.

And what was amazing about it was, you know, we thought we had the biggest success in the world with the lunar landing, and then all of a sudden, here we are having to [reduce our workforce].... None of our managers wanted to let [good employees] go....

JOHNSON: Well, before that happened, in 1968 there was talk of a RIF.

LISTER: It never happened. I think the first one was [19]'70.

JOHNSON: From what I've read, in [19]'68 it didn't occur because there were some negotiations with the American Federation of Government Employees Union, that they wanted you to let go of contractors first. Do you have any memories of that?

LISTER: I sure do, yes.... There was always this argument about whether work should be done by contractors or civil servants, and the contractor workforce generally was the first to be reduced, because of the cumbersome [process]—the veteran's preference and all those things I mentioned. And what [we] would do is, if [we] had to let some contractors go, [we] would bring the work in-house sometimes and let our own people do it.

So, generally, the contractors did go first, but [in 1968] ... we did [plan] a big RIF ... [which could not be accomplished totally through contractor reductions].

[Our employee union leadership felt that more contractor employees should be terminated so that we wouldn't find it necessary to affect civil service employees. An injunction to halt the RIFing of civil service employees was granted by a federal judge and RIF plans were cancelled. Most reductions were then taken through turnover and other reassignments. The

union's suit was filed by a group of Marshall SFC employees but applied to the entire agency.]

JOHNSON: Were there a lot of people, prior to that, that belonged to the union, or did the RIF kind of—

LISTER: No. The union ... when I was [at JSC], was never more than maybe fifty [mostly nonprofessional employees. [I don't remember that the RIF caused any increase in union participation or membership.]

JOHNSON: Really....

JOHNSON: Well, during that time of the RIFs, I imagine morale on the center was a little low.

LISTER: It was very low. It was the worst time, [I would say]. It fell upon me to carry out [the RIFs], and that was not fun.

JOHNSON: Did your office do anything to try to counteract those feelings?

LISTER: Oh, yes. We had an outplacement center. We did everything we could ... [to help those terminated find work. We also arranged for early retirement packages for those desiring retirement. Many employees took early retirement.]

... [We] never had any serious problems. I enjoyed working with the union. We had a good relationship. I couldn't have done it without a young man named Bob [Robert F.] Hall....

He's still [at JSC and is] ... an excellent liaison person with the union....

JOHNSON: You were involved in setting up the management training at the university, and you mentioned before some of the challenges of getting engineers and scientists thinking like a manager.

LISTER: We did a lot of that. We had a program at Columbia Lakes where we [trained] our middle managers, and once a month I ... [and other JSC managers conducted seminars]. Gene [Eugene F.] Kranz [participated along with many JSC managers. Discussions included] ... how we do things [at JSC] and what we could do better.... [We also] used some professional [trainers to provide broadening for our managers in management techniques and principles]....

The culture [at JSC came largely] from Langley [Research Center, which was] ... a very highly technical ... competent organization....

[I believe there was] a real specific kind of personality that came [from] Langley.... [Langley attracted very outstanding] technically competent people, and ... [provided great research opportunities for them]. The nature of [the JSC work was different in that it was more project management, planning programs, operations, and not so much basic research. This required adjustment and change on the part of many former Langley managers. I believe the JSC activities required the Langley engineers to think more like managers rather than research engineers.]

JOHNSON: Quite a challenge to get them to think more like managers instead of scientists.

LISTER: It was fun, though. This is a great organization. And the great thing about it was, it was young and new and not bureaucratic.... [I believe JSC] ... had more extensive personnel programs than [most government agencies]. We were generally considered to be the best in the agency, in terms of hiring and people management....

[As the Director], I worked for five Center Directors, and they all were different. Chris [Kraft] was the most decisive and the most ... [supportive manager I] ever worked for. And Aaron Cohen was [very supportive but] was a little more [indecisive at times, however, and deliberate. Aaron was probably on of the most dedicated NASA employees I ever met]....

JOHNSON: Any more thoughts on any of the other directors that you worked for, that you want to mention?...

LISTER: I loved all of them, really. Gerry [Gerald D.] Griffin was a little more political. He was a little more cooperative [and submissive to] Headquarters. JSC [was] always known as the independent ... center, by Headquarters. But Gerry sort of repaired that a little ..., I think. I was here when Jess [Jesse W.] Moore became director for two [or three weeks]. He was an extremely nice person [but unfortunately not successful as Center Director]....

I saw Gilruth as basically an [exceptional] engineer.... Very decisive and very insightful. Very serious. I never saw him joke. I mean, I'm sure he did, but not with people who worked for him. He'd [frighten you] with his steely blue eyes. But he delegated most of the administrative [tasks] to Wes Hjernevik. I met with [Dr. Gilruth] ... every now and then, on different problems, but he pretty much removed himself from the human resources ... budget and procurement [functions] and let Hjernevik manage [them]. [He was] very highly respected

as an engineer.

I heard Gilruth say one day—somebody had written a history of the center, and he had reviewed it, and he didn't like it—[say], "Whoever wrote this must have been [deranged]." [Laughter] He had very high standards, and you'd better perform for him or you'd find out [that] you didn't....

LISTER: [Chris] Kraft was a very strong leader, very decisive. He would stand up to Headquarters. That probably didn't help him with the politics, but it helped the center do what we [needed] to do.... And I loved him because he [trusted me explicitly and was very supportive of programs I implemented. He recognized the need for consistency in the Human Resources Program]....

JOHNSON: Well, speaking of stubborn, you mentioned before, Rice University. At some point they were encouraged to create a Space Science Department. Did you play a role in that decision?

LISTER: No, I didn't, and I'm not sure JSC did. Maybe we did, that I didn't know, but I think [Rice] sort of did that—the first chairman of that department had done some contract work out here and became interested in that, and I think he's the one that did that.... I think we eventually funded it out of the Science Directorate, maybe, but I just can't comment on that. That was not within my [bailiwick].

JOHNSON: You mentioned the differences in working with them compared to University of



Houston.

LISTER: Yes. They were just sort of above it all. They said, “You know, you come to school here nine months a year, and you don’t live at home and you don’t live off campus and you don’t come part time. We don’t allow part-time graduate students.” And that was it. Later on, they did sort of compromise a little bit, but not a whole lot. That’s why they’re high quality. They have rules and they stick to them, and [it’s hard to] disagree with that.

It wasn’t good for us, necessarily, because one of the reasons we came here ... [was purported to be] the academic environment with Rice and Houston. [The universities] didn’t get that message. It wasn’t that they just jumped to do anything for us; we had to work at it.

JOHNSON: Around, was it 1966, you became the Chief of the Personnel Management Branch. How did that change come about? Could you tell us about your duties there?

LISTER: I was very fortunate, because in the human resources field there’s ... employee development, and there’s personnel management. Personnel management is by far the [most comprehensive], and generally it’s considered more important to the organization, because it has to do with pay, job classifications, hiring, and [many of] the things that are more dear to the heart of the managers. Not that training isn’t, but it’s a different category.

My whole background had been in training, and I’ll never know why [I was] picked ... to be the Chief of the Personnel Management Branch, but that opened the door for me.... I did know that I liked working with people, and I did know that I would enjoy [Personnel Management] if I could ever get in it.... I guess the personnel director who was ... [saw in me

potential in the Personnel Management area]. But it was good for me, and it sure made my career different. I love people problems, I love working with people, and I couldn't have had a better organization to do it in.

JOHNSON: Shortly after that you became the Personnel Officer, and your career took off in that direction. You developed, I believe, a Personnel Specialist to handle some of the details. Can you explain what those positions were?

LISTER: We divided the JSC organization into various parts, and we assigned one personnel person to each of those areas. So, in essence, that person was a little personnel director for [a segment of JSC] Operations, ... Engineering or ... Science, [etc.]. [This person was] ... responsible for all of the personnel advice and support for [his/her] organizations.

At one point we ... co-located ... [our personnel specialists with the organizations serviced. I later pulled back on the co-location of personnel specialists because I felt] there was a question of ... [allegiance, and we had a more effective organization if all personnel specialists were located together.]

The main reason I felt that way [was], it was harder to have consistent policies with everybody [located separately and] out here doing different things and making different decisions.... [While co-location] did accomplish a closer relationship and a broader service, ... we found ... [the best approach for a unified personnel program which could best implement Center objectives].... So we pulled it back, but we still maintained the generalist concept where a person, [even though not co-located, had] an organization to service in all the different areas [of personnel management including classification, employee relations, etc.].... [The generalist

concept was] a good approach.... [It] was unusual at the time, but] ... it gave the organizations more confidence in [the assistance they were receiving from the Human Resources function].

Does that answer it?

JOHNSON: Yes, it sure does. During the end of the sixties and beginning of the seventies, there was a time when you had to start thinking about the people in the Apollo Program Office and what to do with them when that ended. Do you want to talk about that?

LISTER: That was a problem, and that's unique to this organization. When programs begin and end, you have the problems of readjustment [of personnel, a constant problem at JSC which] ... was very interesting. Actually, to tell the truth, our managers did a lot of the negotiating. [As an example], when [the] Apollo [Program phased] down, ... Shuttle [started]. The Shuttle people, ... [wanted] to hand-pick [those employees they wanted, and the] ... Apollo people [wanted] to ... [hand pick or select those to be made available for Shuttle].

[An important HR function was] we adjudicated some of those things, and we set up systems for interviews, and eventually got it all done. It took a lot of negotiating, and fitting people into [available slots].... [Some] Apollo Program people went back to engineering. Some went out the door, decided to retire. It wasn't just one thing; [there were] a lot of different negotiations going on, but the managers played a big role in [staffing], the Shuttle Program. [Most were very cooperative.]

Bob [Robert F.] Thompson, I believe Bob was the director then, and he's a really ... [exceptional, people oriented engineering manager]. He was ... flexible and willing to [accept some employees who] needed to be taken....

LISTER: [Thompson] not only had the engineering skills, but he had a breadth about him that was much broader than some of the [other engineer managers]....

JOHNSON: There were some exceptions to that rule, huh?

LISTER: Yes. By and large, [many of the Langley engineering managers] were all pretty ... inflexible to some extent. [But] that's the strength of the organization at Langley... [when engineers were required to be knowledgeable and well grounded and very reluctant to change their views].

JOHNSON: Well, they have to believe in what they're doing, or else you're not going to accomplish anything.

LISTER: Right, absolutely....

JOHNSON: Around that same time, in [19]71, President [Richard M.] Nixon instituted a wage and price freeze, to control the inflation. How did that affect your department?

LISTER: ... It didn't really affect NASA too much ... [as far as wages were concerned. Some brief slow down in promotions to higher grade levels occurred but this, in my view, was not long lasting and very serious.]....

JOHNSON: Did the inflation in the seventies, or the decreased budgets—

LISTER: [However, the decreased NASA budgets in the early '70s resulted in two RIFs and did result in a period of time when NASA was unable to input large numbers of young college graduates into the Center. This no doubt somewhat adversely affected the growth and nurturing of new managers in the long term.]...

LISTER: I don't think [the wage and salary freeze] affected us much, but the hiring freeze did. Actually, it was a NASA-imposed hiring freeze to get within the budget, as I recall. The Headquarters had a tough job, because they have [many independent] centers ..., and when they have to cut the total manpower, somebody has to decide which [Centers] are going to get cut, and that's always difficult. [Also], the question of [whether we should close a] center came up every few years.... [This, of course, was never done.]

JOHNSON: But you managed to hold on every time....

JOHNSON: Did you have any type of programs or anything to help stretch those federal dollars that the center received, or anything that you can think of during that time that you want to mention?

LISTER: Back then, when I first came with the Space Task Group, we had all the money, all the billets [we needed]. We couldn't hire people [fast enough]. We couldn't fill our billets. We hired 2,000 people in ... [approximately] two years.... What was so great about it [was] the

opportunity to do what you [needed] to do [to get] the people ... [necessary to accomplish our objectives].

A number of the organizations at JSC in the sixties, or late sixties, early seventies, were on six-day weeks. It was just an accepted fact. And there was a lot of work to do. People were spending little time with their families.

JOHNSON: We've been going about an hour and a half now. Why don't we go ahead and just take a break.

LISTER: Sure.

JOHNSON: Okay, we're back again with Mr. Lister, and one of the things we kind of touched on during the break, in 1964, Congress passed the Civil Rights Act, and then in [19]'65, President Johnson signed the executive order to include the federal employees in those requirements, and the Equal Employment Opportunity Commission was formed. You mentioned at the very beginning that it was difficult to get minority and women candidates, especially in engineering and science. Was there a push to do that before this time at all, at the very beginning?

LISTER: Yes, I would say the first time I ... talked to Dr. Gilruth and the center officials, they always emphasized getting more women and minorities. Even before that, we had hoped to, but we had [found] very few. My view is, we tried. We really tried. In fact, I started a [special] student program with TSU [Texas Southern University, Houston, Texas] and Prairie View [A&M University, Prairie View, Texas], [for the specific purpose of obtaining women and

minorities early in their college careers].

We [located] several blacks and women from both Prairie View and Texas Southern, [and] brought them out [to] administrative jobs.... The problem was ... [that major engineering schools might have] one female graduate or maybe two, and all these big companies, Kellogg or [GE (General Electric) or whoever] ... were offering big, big money and [the government] couldn't begin to compete.

And the same thing with blacks and Hispanics. There [were] very few [graduates]. Today, ... women [engineers are much more available] ..., but blacks [are] not.... There still is a great scarcity of black engineers.... I think the problem was lack of availability, and we did start early. We were able to get quite a few co-ops, and that's [a major way we were able to get] people into the workforce....

JOHNSON: In 1972, the Equal Employment Opportunity Act was passed, and the commission finally had the litigation authority to force the issue. Did anything change after 1972 here, or did you just continue on doing—

LISTER: Yes. The agency hired a Director of Equal Employment Opportunity..., Dr. Harriet Jenkin [phonetic].... She was a wonderful person. She was a very good salesperson and ... was able to get the agency, from the Headquarters' viewpoint, you know, to do some things to ... broaden programs of searching and maybe special kinds of training programs to get more people involved, more women and blacks and Hispanics, and, later on, Native Americans.

The thing I remember, she kept a really close eye on [all NASA centers].... She was always down here, inquiring about where we were finding any blacks or women and were we

hiring them. She got reports and she was very helpful, I thought, in helping us. I was given the agency's Equal Opportunity Medal by her because of [things] that we did. We didn't do enough, but [I felt] we did [as much as we could].

JOHNSON: You were the center's Equal Employment Opportunity Officer. Is that right?

LISTER: ...[Only for a short time.] I had a branch chief, Stan [Stanley H.] Goldstein, who was [EEO for a longer time]....

JOHNSON: They also established equal employment opportunity counselors to be an advocate.

LISTER: Yes, I did that.

JOHNSON: Okay, that's what you did?

LISTER: Yes, [the first selection of counselors] happened under my regime. That was partly at the urging of ... Dr. Jenkin, at Headquarters, too.... The whole purpose of it was to resolve concerns and complaints before they got to the formal stage. We usually were able to do that. We didn't have too many that got to the courts....

JOHNSON: Did you have any type of role in the grievance and appeals process?

LISTER: After [it] was taken out of human resources, no. [EO counselors] reported to the Equal



Opportunity Officer, who reported to the Center Director....

JOHNSON: I know a lot of programs were created here to benefit women and minorities. One of the ones that I was reading about was the program where you helped secretaries and clerks to go to school and to get some more education.

LISTER: Yes, so they could qualify for administrative officer. Yes, we did [a great deal] of that. In fact, many of the administrative ... people out there now are former clerks, ... many of them got degrees [through this program]. My former secretary [received] her master's degree....

JOHNSON: Was there a big influx of people that wanted to take advantage of that?

LISTER: Oh, yes. Most every secretary [aspired] to become an administrative officer.... [All of them] didn't want to go to school and work at it. But [of] the ones who did apply themselves, [most did] pretty well....

JOHNSON: We've talked to several women and interviewed different women that worked for NASA and different parts of the agency, and most of them had very positive things to say about the early years.

LISTER: Well, ... there's still a lot that NASA could do or should do. Nobody ever claimed to be perfect, and it's difficult and you can't satisfy everybody. But I do think we had a management that was aware and tried to do things ... right. Didn't always get credit for it.

JOHNSON: With these secretaries and clerks that were attempting to move into those type of positions, was there any resistance in the other management, at the beginning, of wanting these people to join their ranks, any resistance at all?

LISTER: No. In fact, they always wanted to [help implement this program].

JOHNSON: They did?

LISTER: I found out, in the personnel business, the supervisor is usually more loyal to his secretary than anybody else.

JOHNSON: Well, they're usually pretty invaluable. [Laughs]

LISTER: There are reasons.

JOHNSON: One of the other programs that I was reading about was the Incentive Award program. Do you want to explain that and your role in that?

LISTER: Well, [we] had that from the very beginning. That office was under me. We had a number of different kinds of awards, both monetary and non-monetary. We had two JSC awards, which were called Superior Achievement Award, and the top one was a Certificate of Commendation. And then there were Headquarters awards like the Exceptional Service Medal

and the Distinguished Service Medal. At least once a year we'd make a call for nominations, and those medals would be given out at the [awards] ceremony at JSC....

In addition, we did a lot of work in performance appraisal, and this came later in my career. We didn't have much of a formal system in the early days. Everybody was so busy [on early] programs ... [that time was a premium].

We [established] a Management-by-Objectives program ... where once a year each manager was required to sit down with his [employees] and outline the things that were expected.... [Intermediate follow-ups to gauge performance would follow throughout the year]....

[Also, we felt we had] to have some mechanism to ... make sure [our managers distinguished] between the good and the average and the bad [employees].... [We established an amount of money that each Director] could distribute ... according to performance. And that [enabled] them [to award] the good....

JOHNSON: Did you have any part in the NASA Management Development Program, sending managers for a year up to NASA Headquarters?

LISTER: Yes, I used to be the JSC coordinator for that. We had quite a few [who served in temporary assignments at Headquarters], and some stayed.

JOHNSON: What was the purpose? What was the idea behind it?

LISTER: Just to give them a [broader view] of the agency [and its function]. JSC people [were]

always thought to be [too] parochial.... [This program was created to provide them a greater understanding of the entire agency.] It was [generally] reserved for the bright ... managers who were expected to be division chiefs or higher-level managers in the future....

JOHNSON: Well, I know we like to remind people around here that the first words you heard off the moon was "Houston." [Laughs]...

JOHNSON: In [19]'78, the first Shuttle astronauts were selected, and you played a role in that, as far as setting up the process and some of the criteria....

JOHNSON: Picking the Shuttle first astronauts.

LISTER: [Yes, I was involved in establishing the procedure for hiring the Shuttle astronauts and served on the Selection Board for several years.] ... After I was on the board the first few years, [I appointed Duane Ross to replace me as our Astronaut recruiting leader.] ... [Today, Duane] sets up the procedures [and manages the selection process very well]....

JOHNSON: That first group that was selected, the process was a little different than before. Can you talk about some of the differences in the criteria for selecting the ones?

LISTER: ... Of course, we had two groups, the pilots and the mission specialists, and academic excellence and performance was more important for the mission specialists .... The pilots, you know, were primarily good pilots, ... so emphasis was on proficiency in piloting more than

anything else.... [In the early groups most astronauts selected were very accomplished pilots. Later on, more mission specialists were selected.]

JOHNSON: The big change was that women and minorities were in that group, I would assume.

LISTER: Oh, well, yes.... [In the early astronaut groups there were no women or minorities. This was primarily because] there were [few] women [or minority] pilots in the air force, [our primary supplier of astronauts] at that time....

LISTER: No, we didn't have any to choose from, hardly. But we did get Charlie [Charles F.] Bolden [Jr.] and a few people like that who were really good.... [I think], the product that George [Abbey] produces is always excellent, in everything that he does.... He's done a magnificent job in [locating and] selecting women and minorities. And I can tell you, it's his leadership that did that. Nobody else....

JOHNSON: In 1980, there was a possibility of another RIF looming, and one of the things to deter that, your office decided to offer an early-out so people could retire and hopefully eliminate some of that problem, that need for the RIF.

LISTER: And it did. At that time you could go to the Office of Personnel Management, which runs the government's personnel system..., and you could say, "We're in a reduction mode and therefore we need authority to let people go at twenty [service] years," age fifty, as opposed to thirty years, any age, or thirty years, age fifty-five. We got that authority, and quite a few people

took advantage, and it helped to reduce the impact.

There were some top managers who did that. Most of the engineering people who took that early-out [took jobs with] one of the contractors and ... [that helped reduce the impact of] the RIF. At that time it was sort of difficult to get ... authority [for early out].... I'm not sure why, except I guess it cost the retirement system some money, because when people went out early, they could get their retirement early. But we were [usually] able to [obtain early out retirement authority and it was very helpful]....

JOHNSON: Did losing older people or more experienced workers, having that generation disappear, did that affect the way the center ran?

LISTER: ... I don't think it [has been] a problem at all. [Although experienced leaders and workers retired, there were always many younger people ready to assume higher positions.] I think it opens up the doors for young people to exert themselves or to show what they can do.

Gene [Kranz] was always—the sky was always falling because all these experienced people were leaving. Well, most of them were going across the street to work for the contractor and were still available anyway. And secondly, Gene forgot that he was young when he took over those major responsibilities....

JOHNSON: That's usually the way, isn't it? Those kids don't know anything.

LISTER: ... I'm sure there's a point when you can lose too much of your stability with the older people, but I don't think [we had] that problem ... at all. [I'm afraid] they haven't hired enough

young people [during] the nineties.

JOHNSON: To bring some of that enthusiasm into it.

LISTER: You still need the wise old engineers, though, that have been there before and know how to make sure you don't repeat the same mistakes....

JOHNSON: One of the things that you created in the eighties was the automated personnel payroll system.

LISTER: I didn't. [Laughs]

JOHNSON: Well, you were head of that group?

LISTER: Headquarters did. We called it the PMIS, Personnel Management Information System. It was a database more than anything else, that helped you when you're looking for certain skills or when you need people for certain special projects. We had a database that we didn't have before, that we could go to.... It also provided a firmer base for payroll without so much—but payroll was not under me. It was under the finance area. And provided much more automated—but as I understand, they're still working on that. It's still not NASA-wide like they'd like for it to be. My friend Bob [Robert E.] Driver [Ph.D.] was head of finance, and he says they're still working on it.

JOHNSON: Well, speaking of computers, during your time there, computers definitely changed quite a bit, from the very beginning on, to the point where one was on everyone's desk. What impact did they have on your office?

LISTER: We all had PCs [personal computers], and half of my people, more than half, were in a different building. Only my office was in Building 1, ninth floor, and we had half a dozen [employees with me]. But most everyone was in [Bldg] 45.... Much time [was] saved sending messages and information back and forth on our PCs. It really did change things.

I hired a lady from the Marshall Space Flight Center ... who was a personnel data expert.... She came [to JSC and] completely updated our system locally so that we could get information when we needed it. There was always requests from different levels of management for, "Who are the young people in this area who could do so-and-so and so-and-so?" Or, "Who has a skill in thermodynamics?" Before... [we] had to do a lot of that manually by going through rosters and personnel files... [Pat Lang] helped us a great deal. All kinds of personnel data reports are required at Headquarters and OPM [Office of Personnel Management], and she was able to do [those] automatically, too, without too much trouble....

JOHNSON: Were any of the training programs affected by the advent of the computer? I mean, did you have to provide more training in that area?

LISTER: Yes, there were quite a few courses. Most of that was done in the computer area through the computer organization at the center, ... [called] the Computation Data Division. They had a training branch within that [Division, which] ... did center-wide [computer]



training....

JOHNSON: It was probably the other ones.

LISTER: And they did quite a bit through CSC [Computer Sciences Corporation]....

JOHNSON: Yes, part of it was through—yes, we had training.

LISTER: I vaguely remember that, anyway.

JOHNSON: I actually took training in that other building over there. Some of the other duties and programs, I just want to touch on a few of them. You implemented the upward mobility program and the career mobility program. That was with the secretaries and the clerks, is that right?

LISTER: Yes.

JOHNSON: What was the difference between that and the career mobility program, or were they the same thing?

LISTER: ... Career mobility was a—for example, a person who's working in human resources who may not have found a home, who just didn't fit, and we would arrange for a limited assignment in another area to see if that would be more appropriate. And usually it worked out where that person then would go [permanently]. It was not a real formal program, but just an

assignment program where we would move people around to different areas....

Our Director of Administration really believed in that. He liked for people to have ... very broad [backgrounds]. At one point he tried to make [people proficient in both] budget and procurement ..., and it just didn't work, because each one is [such a comprehensive] field.... We didn't do a lot of [career mobility], only when people requested it, usually. In the management intern program we did rotate people around so they could get work experience in each area and then decide which one they wanted [for specialization and career assignment]....

JOHNSON: Some of your other duties as assigned, as they say, included explaining employee policies, such as receiving gifts and gratuities and their ability to participate in organized protests in the sixties and that sort of thing. Do you have specific memories?

LISTER: Oh, yes. There are some definite rules that the Congress established for civil servants— ... you can't do this and you can't do that. We could never accept a meal from anyone unless it was under five dollars.... Or you couldn't accept it at all in some cases, especially if you had a contractual relationship with a person [or his organization. Other gifts and arautities generally could not be accepted]....

I didn't see much [problem with this] at JSC, I really didn't.... The people I worked with at JSC were trustworthy, wonderful people, and I don't think that would have been a problem at all, that they accepted things they shouldn't have.

The rules were very strict and they came out of the Hatch Act that the Congress created. [The] Hatch Act applies to campaigning on the job. There's all these don'ts for civil service. One is, you can't accept gratuities, except in very limited ways. One exception was, if you're in

a group and they bring the lunch in and you can't decline, then you can accept it. I mean, if it's a group. You know, it gets down to that kind of detail. I'm not kidding. But you can't go out after work and have drinks and dinners and things, and then have the contractor that you're supervising pay for it....

The Hatch Act was always coming up when I was there, and it had to do with ... civil servants [not campaigning] on the job....

Every now and then we had things happen that [were violations] of the Hatch Act, and we would take appropriate action whenever that happened. But usually it was through [oversight that the Hatch Act was violated]. Employees just didn't know they weren't supposed to do those kinds of things. I personally think the rules are excessively limiting, and they were interpreted in various different ways by different lawyers at the different centers and Headquarters....

JOHNSON: Were the contractors that were working on site, were they under those same rules? Did they have to comply with those same type of rules, or would a contractor be sitting there with a Nixon bumper sticker and then somebody—

LISTER: No. Same rules don't apply to contractors.

JOHNSON: So they could do it. Did that cause a problem?

LISTER: Yes. I mean, it's unfair, really. You can see why the Congress does it, though, why the Hatch Act exists. I think it was in the [President Andrew] Jackson era, the presidency, where he brought [numerous] people into the White House. He was the president of the common man and

he was giving out all these favors to people who'd vote for him, if I remember that correctly. The purpose is to prohibit mixing politics with accepting gratuities and favors. It's probably not bad....

JOHNSON: ... One of the programs that you had a part in was the program management at the University of Houston-Clear Lake. And I think part of that was where faculty members worked for NASA during the summer to learn some of the project management.

LISTER: Oh, yes, I'd forgotten that.... Academicians are famous for being academicians and not practitioners, and, you know, it really is valuable ..., if they're going to teach, to know what the real world is like. And that was the effort behind that, to get them exposed. Several of them did work with us and they got their eyes opened a ... bit.

And that's why I say, the personnel business—in most cases in our colleges, you have people teaching personnel courses who've never worked in personnel. They know the theory and an academic approach, but they don't know what the real world is really like. That was the purpose of that program, to try to get better understanding of how it really is on the firing line.

JOHNSON: And then they were, I assume, better able to teach once they went back.

LISTER: Hopefully.... [I would think so!]

JOHNSON: There were a number of seminars for center management in the eighties that you helped to bring about.

LISTER: I think that's that middle management seminar[at Columbia Lakes] that I talked about....

JOHNSON: Any others than that?

LISTER: Yes. We set up some retreats and things for top management. We had ... senior staff [retreats].... Went to April Sound [Conroe, Texas], went to Columbia Lakes, where the senior staff, which at JSC is about twenty people, all the directors and staff office chiefs, talk about various problems. Usually ended up in a shouting match or two!!

[Our headquarters frequently conducted professionally directed management education programs at Wallops Island, Virginia which were attended by many JSC employees.]

One thing about JSC, you could always say what you thought and nobody—I mean, you can argue like heck and then go out and be everybody's friends. And I learned that at JSC. I have a tendency to, when I get in a hot argument, I tend to get [angry]. You can tell by the tone of my voice. I've had trouble concealing that in my own situations. But I learned that [at] JSC [it] is very [acceptable] to disagree and say what you think. Somebody might call you stupid, but at least you can say it and nobody holds it against you. In fact, [there is] a premium on that. If you don't speak up, it can hurt you.

JOHNSON: Made it a more comfortable place to work, I'm sure.

LISTER: Yes, it is. It's always been that way.

JOHNSON: In 1998, there was an agency-wide effort to restore the in-house technical capabilities after the Challenger accident. Did you play a role in that?

LISTER: Yes.... I remember we developed a list of technical capabilities related to certain systems on the Shuttle that we didn't seem to have enough people on, or the contractors didn't have the particular [skills that were] needed. ...We developed [the] list and went out looking for [certain skills].... I'm sure that [we] were able to locate [needed skills through various means. These persons were usually hired by contractors who then supplied the skills to JSC. Contractors had more flexibility in hiring.]...

JOHNSON: The NACA Employee Benefit Association had a fight with the Texas legislature over increasing the benefits for spouses of employees on their life insurance. Do you remember that incident or anything about that?

LISTER: What year was that?

JOHNSON: I believe that it started early on, but I think the majority of it happened during the seventies, early seventies.

LISTER: The thing I remember is we had a problem of getting insurance for astronauts when they fly, and their spouses. That may be what you're talking about, because it is a dangerous profession and the underwriters would not cover it.... I ... remember ... the astronauts were

uncomfortable not having [an insurance] program ... [to protect their spouses and families]. I don't blame them....

... I don't remember ... [that we were successful in getting greater astronaut spouse coverage. As I recall, I believe the problem] was with the underwriters. Maybe there were some Texas laws that affected what the underwriters could do. But that's always been a problem... [The astronauts] have the same basic life insurance that all employees have. Same salaries, everything.... [I hope there have been some changes since my retirement.]

JOHNSON: The human resources office conducted some cultural surveys in the eighties.

LISTER: You know about that, too.

JOHNSON: Do you want to talk about why they were—

LISTER: ... It was in the seventies ..., late seventies or early eighties.... Anyway, we were concerned about morale after the RIFs [at JSC] and we wanted to be sure that people were happy. We were hearing a lot of complaints about all the good technical work being done by contractors, and nothing being left in-house for the civil servants to do.

... Headquarters developed what we called the cultural surveys, really an attitude survey [done anonymously]. We had each employee complete [the questionnaire], including all the astronauts.... Then we summarized the results by organization, so that you could see in a picture which organizations [seemed] the happiest and which ones were the most upset.

There were some management changes made as a result of [the surveys by] Aaron

Cohen [who] was the Center Director at the time. [Results indicated that] there were a couple of organizations ... [where] the attitudes were not what they should be. And it was especially revealing because, you know, [employees] answered truthfully since [the survey] was anonymous.... We made some management changes as a result of [the survey and concerns seemed to be ] ... more unhappiness with management style [in some JSC organizations] than [with] anything else.... [Laughter] [The survey] had major consequences for the agency, too, in the long run. [Overall, I believe it created a long overdue interest in improving employee morale and satisfaction.]

[It] was a real interesting, I thought, ... because [the survey] had questions like ... how worthwhile [your] functions were that were being performed, how much you valued your job, in terms of contribution, in addition to all the usual supervisor-employee relationship [questions]. Are you getting appropriate guidance and leadership? Are you getting the training you need? All those things. Generally, it came out [that employees in most JSC] organizations [were reasonably pleased].

...[In] comparison among centers, which was very interesting. JSC did much better than most of the centers....

JOHNSON: Well, that was a good indication of how well your department was doing if JSC did better than the others.

LISTER: [Yes, I believe we had the best personnel program in the agency.] I had my own people fill it out. Of course, we came out pretty good.... There were a few suggestions. But the big organizations were the ones that had the problems. I think that's almost always true, unless you



just have a bad leader in a small organization. You can do that, too. But [the survey] was very revealing. It was worthwhile....

JOHNSON: Over the years that you were there you continued to create and implement a number of educational opportunities for your employees. Are there any that we didn't talk about that you'd like to mention?

LISTER: You even mentioned some I'd forgotten. You did a good job researching.

JOHNSON: Well, Jennifer [Ross-Nazzal] did that. Do you feel like the need for education changed from the early sixties to the time when you left? Had it changed a lot, or the types of educational needs?

LISTER: No. Not in general. I think you need to keep bringing in new people, young people who have the latest in college teachings, and engineering especially. And I think you need to be sure that you give them the development they need, and you need also to be sure you're covering the special skills that are needed for the Shuttle and the Space Station systems. They're like none other, some of them. And so you need training and materials, new materials. It's almost endless, the kind of things they're doing out there, and there's always something new that you need ....

And you do that two ways. You do it by bringing in young people who—the colleges generally do a good job of keeping up with the new stuff that's coming out. So you get that when you bring in young college graduates that are really bright. They're much smarter than

they were when we graduated. They are, especially in engineering. You get it that way, plus in some unique areas you can bring in—we used to bring in college professors to do a seminar or that kind of thing, or send somebody to a year [of] graduate school at Columbia [University, New York, New York] or somewhere, [to study in a very specific field]. You can do it both ways.

But I don't think it's changed, really, except that the Shuttle needs updating. You know, that's directly affected by the advances in metals and materials and systems and all, so it's a big job, keeping up. And there hasn't been—I can't say this for sure, but I've heard that there hasn't been enough money to update the Shuttle like we really should. But it just keeps flying. How many years? Sixteen. A lot of years. It's an amazing vehicle, when you consider that.

JOHNSON: It truly is.

LISTER: State-of-the-art work that has lasted so long.

JOHNSON: The last year that you were here, there was a possibility of having to implement furloughs. Do you have anything to say about that or how you dealt with that? From what I read, it was ongoing and you never knew from time to time whether it was actually going to come to pass or not.

LISTER: Every time [this happened], when the Congress did not pass our ... enabling legislation, which would provide the salaries for the year.... [I thought it was devastating to morale.] It never lasted more than a week ... [but the impact did not help build morale and confidence].

But in every case, when the Congress did finally pass the legislation, they made it retroactive. So everybody sort of knew, you know, well, it's not going to last too long. If it's a week when they pass it, they'll make it retroactive. We'll get paid anyway. It wasn't a big thing. It was more hullabaloo and threat than anything else. It is not ... good [for] morale—I mean, it doesn't build morale to think that the Congress doesn't think enough of you to pass your pay legislation....

JOHNSON: Well, you gave them something else to talk about in [19]'91 when you tried to, or did, get the center to become smoke-free, in '91.

LISTER: No, it was before that. It was before I left. I left in '90. I think it was about '88. It was not too long before I retired. Nobody was [prohibiting smoking] at the time, but I was afraid that we—I read in the papers about organizations being sued by cancer patients for exposure to somebody else's smoking in the same office, and I thought, you know, [we can be] liable. Of course, I wasn't a smoker, [so it was easier for me to recommend policies and be judgemental].

JOHNSON: It wasn't a problem for you.

LISTER: [No.]And I'll tell this.... I went up with that proposal [to Aaron Cohen] and he just couldn't believe that I would propose such a stupid thing. And he said, "Okay," and we put cigarette receptacles out by the buildings, and people would go out front and smoke and they'd throw their butts all over the ground. So we had to figure out how to keep that from happening.

The funny thing about it ..., Aaron smoked a pipe. This policy included cigarettes,

cigars, and pipes, and the NASA Administrator smoked a cigar, I believe. While they agreed with the policy and supported it...[I'm sure that Aaron and the NASA Administrator did not particularly like not being able to smoke when they wanted.]

JOHNSON: Well, I know in every picture of mission control on every mission, it was the smoke. And we've had people in here talk about the haze that just hung in the air, so I imagine that would have been a hard sell.

LISTER: But, you know, since we did that, and I got a lot of nasty comments from the smokers, but since we ... [banned smoking, most other institutions and organizations have done so].

JOHNSON: It's common practice.

LISTER: I thought we were ahead of the times on that. I'd do it again. I think it's the right thing to do.

JOHNSON: Well, over the years, you won several awards. Are there any in particular that you would like to talk about or mention?

LISTER: I just had very generous bosses. I [respected and enjoyed] all of them. I really had an experience that nobody could ever match, because I had five different bosses and they were all different personalities. I learned from all of them and I really learned to work with all kinds of people. I just don't think I could have been any more fortunate, to have such bright, outstanding

people.

I'd retired by the time George Abbey became Center Director. I worked with him for years, so I knew him, too. He was not Director when I was there. But it was a wonderful experience.

JOHNSON: How would you describe your management philosophy through the years? Did it change from the beginning, when you first started?

LISTER: Mine?

JOHNSON: Yes, your personal management philosophy.

LISTER: No. No, I basically tried to establish a close-knit organization where everybody feels a part of it. We established an esprit de corps for our organization that would lead to everybody helping each other, and we did that. We had a really good reputation [as innovators in the HR field]....

And we had everybody pushing for the same goals. When we would have inspections from the Office of Personnel Management or Headquarters, they'd be there till midnight getting ready. I mean, it was that kind of ... [teamwork], and I tried to hire people who had the personality and inclination to be good personnel people. I hired some really bright people.... [Harvey Hartman and Greg Hays, two of my hires have been outstanding Human Resources Directors at JSC since my retirement.]

JOHNSON: You've mentioned some people. Are there any others? You mentioned Chris Kraft and George Abbey. Are there other people that had any impact on you, personally?

LISTER: I worked with a lot of them.... General Frank [A.] Bogart came in for a while as the Associate Director. I found over the years that if you can work for a general you're in good shape, because they [seem to] know [and understand] everything that happens—they've been there. He was in total control of everything.... But a wonderful [understanding leader who would]... let you do your thing....

[Aaron Cohen, Center Director after Chris Kraft, was one of my closest friend who sought my advice and who shared a mutual respect with me for many years.]

There were just a lot of people. Sig [Sigurd A.] Sjoberg. They were all caring people that were proponents of excellence. They didn't put up with a lot of incompetence. I was lucky.

JOHNSON: What do you think, looking back, would be what you would consider your most significant accomplishment during those twenty-nine years?

LISTER: Oh, there's no question. The bright young people I brought into the center. I made special efforts to do that because I thought it was [essential], and it has paid off in major dividends over the years. I doubt if anybody recognizes it, but that doesn't just happen. You have to go get them and find the best ones, and we did. We sent people all over the country, through the co-op program and others, and several of the division chiefs today are former co-ops. And, to me, that's what's made this organization.

JOHNSON: What do you think was your biggest challenge?

LISTER: I was going to say the RIF, but that was a passing thing. The challenge was to learn how to work with each different director every time you got a change. We had a Deputy Director named Bob [Robert C.] Goetz, who came down after the Shuttle explosion, and he was sent down by Headquarters. He had worked at Langley. He was an engineer from Langley, and [as said before] Langley is a very conservative [organization]....

[Mr. Goetz] had [obviously] had a bad experience with [the HR people] at Langley. He considered [the] personnel [office] to be the enemy, and [I heard that] he let it be known that you want to avoid personnel because they try to tell you what to do and [can cause you roadblocks, etc]. ...[In coping with this, it seemed] he didn't want to give us a chance to be partners and helpful. [Unfortunately], he just had had a bad experience. And it took a while.

He didn't stay that long, a couple of years, but we came to [greatly] respect each other [as working partners].... The human resources job is one of—it's a little difficult because you're in-between employees and management, and you're constantly called up to resolve conflict and to set up programs that will make the organization [more] effective. And you have to have consistent policies [that every one understands that are applied fairly].

So it's not an easy role to play. But if you like people and you have good people to work with, it can really be rewarding. And ... it was for [me]. But it did take some adjusting from an Aaron Cohen to a Chris Kraft, or a Bob Gilruth to ... a Gerry Griffin. I guess that was a challenge that I enjoyed.... Most of them were very good to work with.

But the RIFs were ... discouraging and difficult, because people were so unhappy. Anytime you have a reduction in force, it just pervades the whole organization. Nobody works.

Everybody talks about who's going to be next, and their whole attention is directed toward those kinds of problems. You can't make an organization progressive in that kind of atmosphere. It's impossible. But it didn't last too long, only a couple of years. That was the low point.

JOHNSON: Then you retired in 1990, correct? What have you done since you retired?

LISTER: I stay busy. I've been chairman of this Rotary National Award for Space Achievement dinner for several years. We established this program sixteen years ago, and we established what we call the National Space Trophy and each year we have a banquet. We have a selection process where everybody in the country votes on who [receives the National Space Trophy each year].... [President] George Bush ... [was one of our most illustrious recipients]. I was chairman that year.

This year we [presented the trophy] to George [E.] Mueller, who's former OSF [Office of Space Flight] Code M. Code M in Headquarters [and who some regard as the father of the Shuttle Program]....

[I also] do a lot of church work. I collect food at [grocery stores and food banks and distribute it to less fortunate individuals each week]....

JOHNSON: Sounds like you're keeping busy.... Well, before we end, I was going to give Jennifer and Kevin a chance to see if they had any questions, if that's all right with you.

LISTER: That's fine with me.



ROSS-NAZZAL: Could you tell us about what impact you think that you had on the careers of women and minorities at the center?

LISTER: Why don't you ask them?

ROSS-NAZZAL: That's a fair question.

LISTER: Well, I'll tell you what. I'll just give you an example. The secretaries from the sixties, the "sixties chicks," had a party at the Rec Center two months ago. They invited me. They only invited Chris Kraft and Gene Kranz and [myself] because of what [we] did for them—[no other managers]. I think the upward mobility program [which I established] is probably the ... thing [they remember most about me].

For minorities, we had [numerous] special programs to try to get them involved, from different schools.... [As for helping minorities advance], you'd have to ask them, but I know that I did a lot.... [Probably], as much as could be done in that period of time. And, again, I say George Abbey did a lot [as well as some other Center Directors].

ROSS-NAZZAL: Can you tell us about what a day might be like for a Personnel Director at JSC?

LISTER: Well, [for] one thing, you couldn't plan it.... I guess there are two or three major things. Usually you have some ongoing programs, and somebody's working on them in your arena and they want to come in and talk about it. That's an ongoing thing every day.

But usually about the time you start talking about [ongoing programs], you have some

[incident] over here where somebody has ... a supervisor [disagreement and wants to see you], or you have a guy—we had [an employee] in our shop who brought a shotgun in his truck and a list of people he was going to kill that day....

Almost every day—not every day, but once or twice a week anyway [something unusual happens], but that’s why I like it.... There’s never a dull moment. And then, you know, a couple times a week, you’d have somebody complain about a supervisor, or the unions coming in and complaining about something a supervisor said about [him/her]—had an employee who was Jewish who complained because they played “Silent Night” at Christmastime, you know, in the office. Christian music. It just goes on and on.

But yet the big part of the job, in my mind, was helping management plan and organizing our human resources program so that it helped the [JSC] organization do [its] job.... And attracting good people. And you have all that, plus you have all the records, you have all the insurance, all the benefits, payroll, input, plus all the day-to-day problems. It’s really fun. But you have to have the personality for it.

ROSS-NAZZAL: Thank you.

LISTER: Thank you.

JOHNSON: Kevin?

RUSNAK: Yes, I did have a couple of questions. First, just sort of a specific one. Some of the people that we’ve had in here mentioned that they went on Sloan fellowships, and I was

wondering if you had any involvement with that program.

LISTER: Yes, ... [the Sloan Program]. It was an MIT [or Stanford executive] program where very, very highly selected individuals were allowed to [attend] for one or two years.... [It is an executive management program.] And yes, NASA—every year NASA had probably one nomination and some were from the JSC. We would decide whether there was anybody who would be of that level and caliber, and we would nominate them.

And we had quite a few who would go. [Attendees are] executives from various corporations, government, industry, universities.... It's like any executive management program, except it's the ... Sloan, which is way up there. We [participated], and it was good. So many times, though, when [employees] came back [to JSC] they ... had their sights set higher than the previous job that they had or maybe even higher than what JSC could provide, so they ended up going to Headquarters or somewhere else.

RUSNAK: What sort of returns would you see on a program like that, or other ones?

LISTER: You're probably asking the wrong person.... [But], just to be honest with you, I thought those programs were nice, and [gave a great opportunity to spend] a lot of time talking to other executives about how they do things. I think they're good, and had some benefit for the attending, but I don't think they were world-savers like some people do. I'm more practical than that. I think you still have to worry about people relations and all the other things. But some guys just go absolutely bonkers over those kinds of things. I'm not saying they're not good. I think they're excellent. But I don't think it's the end of the rainbow, either. I'm being honest.

You know, when they added the University of Oklahoma program at JSC, Phil Whitbeck really got [upset with] me because I would not participate. I had my hands full with the personnel job and I didn't have time to go off doing the academic stuff. Others did, and they got recognized for it. And that's fine, if they're inclined in that direction, but I guess I'm just a little more practical. There's room for both.

RUSNAK: Well, that actually gets at my next question. You've spoken a lot about training of others in these management improvement programs, that sort of thing, but how did you yourself keep up with the field or get new ideas and concepts?

LISTER: I went to a number of seminars, one-week, two-week. Went to Cornell [University, Ithaca, New York] . What a beautiful place.... They have a number one [program] in Human Management ... at Cornell, and I went to a couple of seminars there. I went different places. And on several occasions Headquarters would have a group ... retreat somewhere, where we would go and have outside speakers.... I guess it was good. [Laughter] ...

RUSNAK: ... Something you alluded to earlier were the lack of provisions for astronauts' families. You specifically mentioned insurance. But NASA, I guess, has also been criticized for lacking some sort of support network or whatever for their families, because the astronauts are gone all the time. We've also heard from engineers and these guys who spend seventy, eighty hours a week at work, and I was wondering what your thoughts were on that and maybe how that had changed, if at all, over the years.

LISTER: I think you're exactly right. That's an area we didn't do much with. I guess that's a weakness that NASA has always had. I know a number of the astronaut wives got together, you know, on their own and formed companionship and things, but I can't recall that we did a lot in that area. I'm sure it's needed. It's just one of the things that fell through the cracks. There are some though that don't want it.

JOHNSON: As you said earlier, you can't please everybody.

LISTER: It's a good question.... After the *Challenger* accident, a lot of them really became close, a lot of the astronaut families. It was a horrible, horrible thing, but I guess it did have that one benefit of people becoming closer. Everybody rallied behind them. All of us did. It's like one big family. Mike [Michael J.] Smith was one of my best friends. We called him "Bubba." ... [I] just couldn't believe that happened. But, you know, that's part of the business we're in, and they know it when they go in it.

RUSNAK: Just one final question from me. You've spoken a lot about the Langley culture that came here and how they came to JSC. How did that change over time, if at all?

LISTER: It changed over time because we hired new people who became chiefs on their own and who had a little different perspective. I don't want you to think I'm criticizing Langley, because Langley needed those kind of people. Langley was a research center and that's what they do [best].... [In my view, Langley engineers weren't fond of administration or] bureaucracy. [Primarily], they cared about ... their research and their engineering [projects].

And there was a little close-knit group there and they did well. [I believe that kind of group is great a research but doesn't function well] ... when you get into a big project management organization where you have to relate to a lot of different organizations and people.... Most [all of the Langley group] are gone now. It's the new people [who have changed the JSC culture, for good or bad, over the years].

RUSNAK: Okay, thank you. That was all I had.

JOHNSON: I want to thank you for coming today and for sharing your experiences with us, and we really appreciate it.

LISTER: Thank you. I enjoyed it.

[End of interview]