

NASA HEADQUARTERS ORAL HISTORY PROJECT EDITED ORAL HISTORY TRANSCRIPT

ALAN LADWIG
INTERVIEWED BY SANDRA JOHNSON
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JOHNSON: Today is June 7, 2017. This is the second interview with Alan Ladwig for the NASA Headquarters Oral History Project, and is being conducted at NASA Headquarters in Washington, DC. Interviewer is Sandra Johnson. I want to thank you again for meeting us and braving the traffic to get here. I appreciate it.

LADWIG: A pleasure to be here.

JOHNSON: At the end of the last interview, you mentioned that a comment in a speech you gave at the International Space University in Strasbourg, France, didn't go over well with certain people, and it ended up being mentioned at a congressional hearing with the [NASA] Administrator [Charles F. Bolden]. I thought we would pick up there, since that's the last thing you talked about. Talk about that, and how that affected what you did next.

LADWIG: I was invited to speak at the opening session [14th Annual Symposium] for the International Space University in Strasbourg, France. I was the NASA representative, and it was an audience of about 350 college-age students from all over the world. The organizers said, "We know that you like to be candid and provocative, so feel free to be candid and provocative." It was the first talk of the morning. I was kind of hyped up on a lot of cappuccino, and I was

excited. I always get very wound up before a speech because I love doing it. It was young people, and from all over the world.

They wanted me to talk about the status of Constellation [program for human spaceflight to the Moon and Mars]. This would have been in February of 2010, and at that time the [President Barack H.] Obama administration hadn't made a final decision on Constellation. They had established the [2009] Augustine Committee [Review of United States Human Space Flight Plans Committee chaired by Norman R. Augustine] to look at it. But, it was a program in trouble, it was over budget.

Initially, there was also going to be a lunar lander called Altair, but that was never funded. There were funding issues with Constellation. The Republicans criticized Obama a lot, saying that, he was going to kill human spaceflight, there would be no more human spaceflight. That just wasn't true. He did support the [International] Space Station, and I know that's not real human spaceflight for some people, but it was necessary at the time. Then they were re-looking at what to replace Constellation with. I was really tired of hearing this, "Oh, Obama is killing human spaceflight."

So I am all wound up, and I am getting the energy from the kids. At one point I said, "And you know, as for those people that keep saying that President Obama is killing human spaceflight, I have two words for you: 'Bite me.'" I was trying to be a little funny, I was trying to be provocative. I didn't see it as a huge insult; I saw it as kind of a smart-ass remark. In hindsight, should I have said it? Probably not. But I didn't think it was the end of the world. Again, I am overseas; I am with a bunch of college students—who cares?

Well, this is where I learned the power of Twitter [social media platform]. Somebody from NASA Headquarters in the audience tweeted—thankfully, the tweet was taken down by the

end of the day—but kind of misrepresented what I said, and made it sound really bad, “You can just bite me.” That got picked up by *NASA Watch* [blog], and it got picked up by other people. Lori [B.] Garver, who was the [NASA] Deputy [Administrator] said to me, “Are you insane? What are you doing?” I said, “Geez, everybody, just lighten up. I was joking!” Well, people didn’t see it that way.

When I came back I got very chastised by the head of communications. I was a Deputy [Associate Administrator for Public Outreach]. The head of communications was Morrie Goodman. He wasn’t really happy, Lori wasn’t happy. Charlie Bolden, the Administrator, hadn’t heard about it. I had been back several days, and then I heard he was going to be testifying on the [Capitol] Hill. I wanted to be the one to tell what I had done, I didn’t want to have him hear it from somebody else. I wanted to put it in context.

I ran into him in the hallway, and I was going to explain what happened. I said, “Charlie, you have got to understand what happened in case it comes up anywhere.” Right then, somebody, I swear to god, popped out of the floor right in between us, “Hi guys, how it’s going?” and started rattling away. Charlie says, “Geez Al, I’m sorry. I have got to get up to the Hill. We’ll have to follow up later.”

He goes up on the Hill, and I am watching it on TV. Congressman [Peter G.] Olson from Texas was the [acting ranking minority member] of the committee [on Science and Technology]. He said, “So, Mr. Administrator, are you aware, or can you tell me why one of your senior appointees said that those people that disagreed with the decisions about Constellation could ‘Bite me’?” Oh, and he mentioned my name. Bolden goes, “No, I wasn’t aware of that. We’ll have to talk to him.”

Well, that was not good. I ran into one of Olson's staffers either that week or a couple days later at a reception, and I was so angry. I just thought it was a low blow; it was a political punch below the belt. It was not necessary. Of course Charlie didn't know about it, and "Why would you do that?" What did this have to do with anything? I wouldn't even talk to the staffer. I said, "Just get away from me."

Then Morrie Goodman, not long after that—within weeks I think it was—ended up being removed. It's a long story, and it's not up to me to get into that. As the political appointee, and as a deputy, I should have been the acting AA [Associate Administrator]. My other counterpart in news and media was Bob [Robert] Jacobs, and he is a civil servant. Normally, you would go to the political appointee.

Charlie called us in to tell us that Morrie was being removed, and that he had decided that Bob would be the acting AA. Then he asked me to stay after Bob left. He said, "I'm sorry, Alan. I know you feel it should go to you, but after your comment, if I made you the AA it would seem like a poke in the eye to Congressman Olson."

I said, "I don't care. He is a Republican, poke him in the eye." Well, Charlie didn't see it that way, and I don't fault him for it. I think the whole thing was a little silly, but that became a point where I felt my career started into a decline. There were a lot of people that felt I should have never said it, and there were other people that were highly amused by it. I got a call from OMB [Office of Management and Budget] and one of the examiners said, "Unofficially, we are really glad you said that." They thought it was funny, they thought it was right on. I would be walking down the hall and somebody would yell, "Hey, Ladwig! Bite me!" Eventually, somebody gave me a t-shirt that said "Bite me" on it.

That was in 2010. I went on and did my job as the deputy of Public Outreach. I tried to put the whole thing behind me, but clearly I was not going to advance anywhere. It screwed the pooch for me, in a way. I take full responsibility, but as I said, I thought it was a joke. As Keith Cowing from *NASA Watch* said, "You're not a standup comedian, so quit trying to act like one." I said, "Okay. Forgive me." So that's that story.

JOHNSON: You still had three years after that as the Deputy Associate Administrator for Public Outreach in the Office of Communications. Talk about that time period, with Charlie Bolden as the new Administrator, and everything that was going on during that time. As you mentioned, the changes to Constellation.

LADWIG: I think I told you last time, I felt very fortunate at how quickly we (political appointees) were brought on board. We started the day after the inauguration, which was really something for me because under [President William J. "Bill"] Clinton it took me eight or nine months to get in. I was here from that time [January 2009], and Charlie and Lori didn't show up until, oh, much later. July maybe?

JOHNSON: It was July.

LADWIG: I got to go to Moscow [Russia] as a senior NASA rep [representative] for one of the landings from the Space Station. It was really kind of a fun time. I worked very well with Chris [Christopher J.] Scolese, who was the Acting Administrator at the time, and I really enjoyed that period.

Then when Charlie came, we interviewed. At first, I don't think he really understood that I was a political appointee. Because I had been a civil servant when I originally met him, somehow he thought I was a civil servant. So I had to explain that I was a political. He said, "Well, what do you see yourself doing?"

I said, "I'd like to be back with [Office of] Policy and Plans, or Communications." Instead, he said he would make me a deputy in Communications.

I said, "Well, I was an Associate Administrator under Clinton, so that's kind of a step backwards."

He said, "I don't think you should look at it that way."

I said, "Well, you are a general. If you'd have come back in the Marines and they said you would be a lieutenant colonel, what would you think?"

He said, "Well, that's different."

I said, "Okay, if you say so."

Somebody told me a story—whether or not it's true, I never got around to looking it up. But somebody once told me that George [M.] Low—who I always admired as a wonderful manager—took whatever position he was asked to do. Sometimes he would be here on the chart, sometimes he would be a little lower, but it was important to him to do the job. So I decided, "Well, that's what I'm going to do. I am going to do a good job as a deputy for outreach."

There had been a lot of churn in the Office of Communications. Some things that had been in News and Multimedia were moved over to Outreach, which used to be Public Service. We ended up with a great collection of things. We ended up with Astronaut Appearances, Speakers Bureau, Exhibits, Special Projects, Guest Operations, and Special Events. I wanted to get History [Program Office] again, because I had History when I was in Policy and Plans.

At that time, History was under International Affairs, which was never, in my mind, a natural fit anyway. Lori helped me maneuver and negotiate with International Affairs to have History moved over with us. I was always proud of that, because we could give it the attention I thought it deserved. Let's see, what else? Oh, and then Public Inquiries, dealing with all the public mail and requests for information.

It was a good group, and we bonded well early. I had the whole team come over to my house, and we had a facilitator come in to try to do some teambuilding stuff right away. It was funny—Human Resources at Headquarters at first advised against that, that I shouldn't take them to my house because what if something would happen? What if somebody got hurt, and I'd be liable? I said, "You're thinking this too hard. We are going to do this." They did get behind it, and they even arranged to have chairs brought out to my house.

We had a great session, because I live on Lake Barcroft [Virginia]. We sat down there by the lake and we just had a wonderful time, we bonded. I was always really proud of that team of people, because I thought we did some really good things.

The things that stand out most are a lot of astronaut appearances, because the [Space] Shuttle was flying. We were also in charge of Guest Operations. We worked well with all the other Centers, especially the wonderful team they had at [NASA] KSC [Kennedy Space Center, Florida] to do Guest Operations. We would end up being responsible for the 10,000 people that came on site. Not all of that we dealt with, but working with KSC to make sure that went smoothly.

Then we dealt with all the VIPs that got to come to the [Neil Armstrong] Operations [and Checkout] Building to watch the launches. I really enjoyed that, because we got to meet a lot of

nice people, and we had a wonderful Guest Ops team that always made that run very smoothly. I don't think we ever had any complaints from anybody. We always got good feedback.

The challenge on those was always if the launch scrubbed. Then you have got all these guests, you have got to renegotiate hotel rooms, how many buses you still need. It was always kind of a kabuki [Japanese theater] dance to make all that run smoothly, but as I said, it was a wonderful team of people. I was always proud of that, especially the last [Shuttle] launch [STS-135 (July 2011)]. As you can imagine, now all of a sudden everybody that had been invited before and could never make it, everybody wanted to come. Somehow we got through it, and it ran smooth as could be.

The next big special project for us was when [Space Shuttle] *Discovery* came to the [Smithsonian National] Air and Space Museum [Stephen F. Udvar-Hazy Center in Chantilly, Virginia]. That was an interesting collaboration, because while we were responsible for the *Discovery* coming to [Washington] Dulles [International Airport], from that point the Air and Space people were in charge. Working with them to make sure that part runs smooth—they wanted a lot of astronauts there, they wanted other VIPs—we helped with that.

There were moments of it that were difficult, because they wanted to be in charge of the entire guest operations piece. For example, they invited all the astronauts, and there was going to be this breakfast kickoff in the morning. A lot of the astronauts brought their wives or spouses, but they weren't invited to the breakfast. They came up to me and asked me, "What is going on?" I said, "Man, I am sorry, but go talk to General [John R. "Jack"] Dailey [Director of the National Air and Space Museum], because these are the rules we were given."

Then there was even a brunch that they weren't going to let the wives come to. It wasn't a matter of not enough room or not enough food. I mean, they were buffets, there was food

galore, but some reason, Air and Space had it in their head they were not going to invite the spouses. I think we finally got them in on the brunch, but there wasn't any reserved seating for the wives. So their husbands and spouses are out there walking alongside *Discovery* from where they towed it in and put it face-to-face with [Space Shuttle] *Enterprise*.

The spouses had to walk through this muddy field, through the back rope where there were some empty seats for them. One of the astronauts came up to me and said, "Alan, this is unacceptable."

I said, "I am doing the best I can."

We finally got them in there, but I will never forget, one of the astronaut wives said, "I could have been having a manicure down in Florida today. I don't need to be walking through this mud field." But we got through it. It was one of those things, you always have some challenges. It ended up being a good event, good turnout, good weather, and we successfully turned the *Discovery* over to the museum.

We did a similar event in California after [Space Shuttle] *Endeavor* [moved to California Science Center, Los Angeles]. They had done that big thing of pulling *Endeavor* through the streets. I was not very involved with that; that was more of a JSC [NASA Johnson Space Center, Houston, Texas] thing, but we were involved with the ceremony of the handover at the museum. Again, a lot of VIPs, a lot of people. We cooperated with the museum staff, and that was a smoother operation, I felt. It was a little smaller event in terms of numbers of people, but it went very well.

I was not involved with [Space Shuttle] *Atlantis* down at Kennedy, because it was there and they pretty much handled that on their own. Then, what ended up in New York? Oh, *Enterprise* ended up there, yes. Our office was involved in that. Jim [James E.] Hull, who was

our exhibits guy [manager of Exhibits and Artifacts], had a great relationship with the [*Intrepid* Sea, Air & Space Museum]. That went well.

The other events that I remember well—we tried to improve the Speakers Bureau, we tried to get more NASA employees involved. We did get involved, unsuccessfully, in the number of publications and posters and collateral materials for programs that were being produced by program offices and the Centers. There was not very good focus on that, so everybody was out kind of doing their own thing. They didn't want to be told by any centralized organization what they could or couldn't do.

I went out to a warehouse at [NASA] Goddard [Space Flight Center, Greenbelt, Maryland]. This huge warehouse had—it must have been 14 rows of shelving, fifteen-feet high, with books, posters, pamphlets, patches, decals—stuff that wasn't being distributed. Hundreds and, in some cases, thousands of posters and things, and they were all just sitting there.

In our Communications Coordinating Council, I even put a presentation together that showed the ridiculousness of what was out there. I said, "People, this is a waste of money. We need to have a plan that people show what's their distribution going to be, what's the purpose of it, who is it for, how are you going to get rid of it." Even our own History [Program] Office was to blame, because there were hundreds of history books out there that were just gathering dust.

I was unsuccessful in getting anybody to pay much attention to the problem, at least what I saw as a problem. The bad part was that building was going to be torn down, and that stuff was going to have to be moved. The staff person at GSFC asked, "What do we keep?" For example, there were boxes and boxes of brochures and pamphlets from the Centennial of Flight. Well, the Centennial of Flight was 2003 [100th anniversary of flight of Orville and Wilbur Wright]. So either why was it still there, or why wasn't it being distributed?

I kept pushing, “Can’t we take all this stuff and bring it to Headquarters? Put it out at Goddard where employees can come and pick up stuff for their kids for school? Or take it to schools?” We got some of the materials moved, but it was like a spit in the ocean. I had left the agency by the time that building had closed down, so I never learned what happened to it all. The woman in charge of it at Goddard was very frustrated. She said that stuff keeps coming in, and it just didn’t go out.

That was one of the frustrating moments at that job, because I was ineffective in being able to make much change. Other than the History Office where we started printing fewer books, so that was good. You hear like, “Well, but at a certain point it doesn’t matter if you do 500 more, because the price differential isn’t that much.” Okay, fine. But who is going to get all the extra copies?

The other one that we were proud of was the funeral of Neil [A.] Armstrong at the National Cathedral [Cathedral Church of Saint Peter and Saint Paul in the City and Diocese of Washington, DC]. It was our event, but it wasn’t our event. The National Cathedral has some pretty specific rules about what you can and can’t do, and who you can invite. They wanted to see the list of everything, and they would get final approval of who were allowed to come, and what the ceremony was going to be, and who got to sing. We worked with a woman, [Rev.] Gina [G.] Campbell. She was the [Acting Director of Worship], and she was very nice to work with.

We ended up pulling off a good event – if you can call a funeral a good event. There was a fear that there were going to be too many people, so the number of invitations that were sent out was a little more conservative than I was comfortable with. I said, “You always send a lot out, and some people aren’t going to come or they can’t make it. The more, the merrier.” In the

end there were a lot of seats open, and the Navy brought in a bunch of local naval cadets. They call them “seat fillers.” That’s what they do, they go to events to fill seats at major public events. The head of OMB came, Jack [Jacob J.] Lew.

Working with the Armstrong family was interesting. We had to work with the current wife and the former wife and kids, so there was a lot of politics going on there. Buzz Aldrin wanted to speak, but the family didn’t want him to. He said, oh, he had to speak, and he was going to speak for 10 minutes. I said, “Well Buzz, number one, the cathedral didn’t want anybody to speak more than three minutes and the family hasn’t asked you to speak.”

He then took it up to Charlie Bolden, demanding that he get to speak. Charlie said, “It’s not up to me, it’s up to the family.” Then he went to Dr. [John P.] Holdren at OSTP [Office of Science and Technology Policy], the president’s science advisor. So I get this call from his office on behalf of Buzz. I said, “Sorry, the family doesn’t want him.” Buzz was very upset, and maybe rightly so, but it wasn’t my call, it wasn’t my family’s death.

We ended up—you would have to look at the memorial program, but Gene [Eugene A.] Cernan spoke. Diana Krall sang “Fly Me to the Moon.” There were choirs. It was a nice, dignified event. As far as I was concerned, it came off without a hitch. We didn’t have any complaints from anybody. In the end, the family was very appreciative of how they were treated, how everything went. But I was one glad person when that one was over, because here is the first guy to land on the Moon; you don’t want anything screwing up.

My last event for NASA was the Sally [K.] Ride memorial. That was very special to me because of how close she and I were, how many times I worked with her during my career. That one was at the [John F.] Kennedy [Memorial] Center [for the Performing Arts]. This one was difficult at first because her partner, Tam [E.] O’Shaughnessy, really felt that this should be on

par with Neil Armstrong. "Well, what did you do for Neil?" I said, "It doesn't matter. Neil was the first man on the Moon." I love Sally, don't get me wrong, but the first man on the Moon, the first [American] woman in space—there was a little bit of a difference in levels.

Tam pushed for a lot of things, and we had to push back. Then funding became an issue, because when you do these type of events it's not inexpensive. There was a lot of expense involved. NASA senior officials started to get a little concerned. They said, "Well boy, if we do this for Sally, then who else are we going to have to do something for?" So there was a little hesitation there, but I kept making the case, "Maybe other people will come forward, but she was the first woman in space."

We ended up not at the National Cathedral, but at the [John F.] Kennedy Center [for the Performing Arts]. There again, when you do things at the Kennedy Center, it ain't your event, it's their event. They have to approve everything, and they determine how long it can be, and "No, you can't video it," and "No, you can't put it on NASA TV." But we got through it. We worked with the Sally Ride Science [company founded by Ride and O'Shaughnessy in 2001], we worked with Tam. We ended up with, I thought, a great program. Miles O'Brien [science and technology journalist] ended up being the MC [master of ceremonies]. That was at Tam's request.

We had a good turnout, the place was full. We wanted to emphasize having a lot of kids there, a lot of young people. I wish we could have had more kids at Armstrong's event as well. Too often it ends up being about the adults, about the people that worked with whoever you are honoring, but you want to have kids see a legacy, be inspired. We did fairly well, I think we could have done a little more, but again, it wasn't our thing.

We worked with Twyla Tharp, the dancer. She had some kids come to do a dance, and some with original music. That was really something, because they had to be brought up from North Carolina.

At some point, NASA kind of balked on the money, and we were \$45,000 short. I had this weekly little newsletter I used to send out to the stakeholders—people from business, space advocacy groups, professional societies. I never made a big deal out of it; it was just something I did on my own because I wanted to keep people informed of what was going on. I included the NASA current news and information on relevant issues.

I'd usually start it off with kind of a tongue-in-cheek introduction, but in that one I said, "Oh, and by the way, if anybody is interested, Sally Ride Science is looking for some funding to help with the memorial service. Here is who you should contact." I mean, I wasn't telling them they had to. I just said, "Here is an opportunity."

Well, I got hauled in by my boss, David S. Weaver. First of all, he said he never knew about the newsletter, which he may not have. Secondly, he said it was illegal for me to have made that mention about funding. He said, "You can't make people—"

I stopped him there and said, "I didn't make anybody do anything. What I put out there was an opportunity." I think eventually NASA had to reverse itself, and they ended up paying for it, picking up the tab. In any case, that became a big bone of contention with Weaver and me.

Also, it may have been that same newsletter—because it was all in about that same timeframe—or a different one, but *Aviation Week [& Space Technology]*, weekly magazine] had written a story that the upcoming NASA budget request would include funding for an asteroid mission. Up to that point, it was all very hush-hush. You could talk to five different people about what the asteroid mission was, and get five different answers, but there was going to be a

budget request for some kind of an asteroid mission. So I put in the newsletter, "Oh, I see *Aviation Week* has a story on the asteroid mission, so I guess you we'll be hearing more about that."

Well, I got called in again to Weaver's office. "The White House is very upset with you."

I go, "Who at the White House?"

"Oh, well, we can't get into names."

I said, "Well then, I am not interested. What are they upset about?"

"Well, because you confirmed the asteroid mission." This was two weeks before the budget was going to come out.

I said, "Are you kidding me? It's out there, I confirmed it? So what?" A week later, Senator [Clarence W. "Bill"] Nelson [II] put out a press release talking about the asteroid mission. So I went to Weaver and said, "So is the White House going to get mad at him? Because he laid out details."

That pretty much was it for me. Weaver and I just no longer saw eye-to-eye. He said, "From now on, you are going to have to let me see these newsletters first. I am going to have to approve them."

I said, "Well, that's not going to happen."

He went and bragged to Lori Garver, "Oh, I just told Ladwig that from now on, these newsletters had to be approved to me."

She said, "Well, I can't imagine that's going to happen."

That's when Weaver kind of advised—he wanted to know what my retirement plans were going to be. I said, "I was planning on leaving at the end of the year." This would have been

February or March. I said, "I'll tell you what. I am going on vacation for a couple of weeks. When I come back, we can have this talk. I will let you know what my decision is." I was on vacation, and I decided I didn't want to do this any more. It's no longer fun. It's too much stuff going on, and the politics were starting to get ugly. I was still carrying a lingering resentment about the whole thing where the "Bite me" remark was brought up in Congress for no reason at all.

So I came back from vacation, and boy, I don't think I was back in the office 10 minutes when Weaver came by to see me. He said, "Did you make a decision?" I said, "Yes, I am leaving soon." And so I left at the end of April 2014. They threw a very nice going-away party for me with wonderful going-away parting gifts. I left without animosity toward anybody, but I didn't leave as happy as I would have liked.

Now I look back at it, and it's been a little over four years now. People say, "Oh, don't you miss it?" And I said, "Well, I really don't." Because the politics have gotten even uglier over that time. And we are still waiting—"Journey to Mars! We are going to Mars, baby!"—I was singing that tune since 1988. Then the sacred asteroid mission, now I don't know if it is in the budget or out of the budget. Certain Republicans say they are going to kill it. I do know that in one of the hearings, Charlie was discussing the asteroid mission, and Congressman Lamar [S.] Smith said, "Well, I don't find that to be a particularly inspirational mission."

That's the buzzword for me where my hackles get up, because a lot of space advocates like to talk about NASA is all about inspiration. Wrong. NASA is about exploration and research. NASA is about a lot of things, and what we do is inspiring, but no other federal agency is judged on a metric of inspiration. Is the Department of State judged on inspiration, or the Department of Fisheries, or the National Institutes of Health? You go down the line, and you

show me one agency where they have to justify themselves based on inspiration, and you won't find one. I get into arguments with people about this. They say I am wrong. I say, "Okay, I am wrong. But show me another agency that's judged on inspiration."

And what's inspirational to you may not be inspirational to me. We saw this with Charlie. He thought, "Oh, the asteroid mission is going to be so inspirational," and the congressman says, "Well, I don't think it's inspirational." And how do you measure inspiration? You'll hear people say, "Oh, you can measure inspiration because during Apollo, there was an increase in the number of engineers and scientists." Well that might be true, and that's a nice metric, but if that hadn't happened would Apollo have been a failure?

I understand inspiration, I think it is important, but I think it's the byproduct of what NASA does. I'm a little concerned when it becomes the front of the train, when it's the engine and not the caboose. I got tired of fighting that, because it was like, "Well, what we have got to do is we have got to be inspirational."

After I left the agency, Courtney [A.] Stadd and I wrote an editorial kind of addressing that, and then we were invited to speak out at the Space Foundation's Space Symposium in Colorado Springs [Colorado]. After that, people from the audience argued about it. I said, "All right. I have put it out there. I am done with it, I am not at the agency anymore, I don't care."

I stay in touch with people. I am involved with this Star Harbor Space Training Academy that wants to do offer astronaut training for people that are going to do suborbital flights and space enthusiasts. When there are 18,000 people that applied to be an astronaut, I think there might be some interest out there to have that experience. I have been working with them for going on four years now. It's been slower than we had hoped. We are trying to lease some land out in Moffett Field [California], right across the street from [NASA] Ames [Research

Center] that belongs to the Army. They have delayed the release of the RFP [request for proposal] to lease the land many times. It's supposed to come out maybe Friday of this week, we'll see. [Our bid wasn't accepted by the Army. We then worked for two years to lease a parcel of land on the NASA Ames Research Park. Due to prolonged bureaucracy and delays on when we could start (due to an underground toxic plume that needs to be mitigated), we eventually looked elsewhere. We are now negotiating for land in Colorado Springs and are optimistic that we can make an official announcement in the summer of 2019.]

I do try to keep my fingers in space activities a little bit, and I enjoy running into former colleagues and seeing how they are doing. But when I go down to Headquarters today, it's like not a lot has changed. And as I said, Journey to Mars? Well, maybe, maybe not. Now I am hearing the [President Donald J.] Trump's people are saying that maybe it's the Moon first. And it's like, "Oh my god, we had that argument 20 years ago—Moon first, Mars?" [It is now official: the Trump Administration has directed NASA to return humans to the Moon by 2024.]

I am glad somebody else is here to carry that gauntlet forward. I tried to push that peanut up the hill. When I left NASA I was offered a job in communications at Northrop Grumman [Corporation]. I said, "Well, what would you want me to do?"

The response was, "We are going to Mars."

I said, "Oh, in that case, I am not your guy. I can't do it anymore, I just can't do it anymore."

JOHNSON: You can't fight that battle.

LADWIG: But I am glad there are other, young people that want to fight that battle. I think that's wonderful. I do think some of the best days of space are ahead of us. I think the commercial sector [private spaceflight companies and services] is very exciting, what's going on. I think they will have successes because they don't have all of the barriers and regulations; they don't have Congress looking over their shoulder every two minutes. I think they are going to have some challenges. I think there are going to be setbacks for them, just like there are for NASA, but I am very encouraged by it, and I think there are going to be some great things ahead.

I had my chance, and there are other people that sometimes I wonder, "Maybe it's time for you to move on and give that next generation a chance." One of the funny stories: The Human Resource office used to bring management interns, or whatever they were called, from the Centers up to Headquarters. I was frequently invited to go and talk to them on how I got into a career in space.

Then one kid—and I will never forget this—he couldn't have been more than maybe a grad [graduate] student, or he may have just been out of school. He said, "Well, what I want to know is how do I get your job?" It amused me a little bit, because I thought, this younger generation, they are not willing to just sit around and pay their dues. I shouldn't say they won't pay their dues, but they are focused on their intent of where they want to be, and they want to get there as soon as they can. My feeling is more power to them. It probably isn't going to be that easy, and my caution to them is, "Don't be disappointed, you will get there. You are going to do great things. But especially if you are working for NASA, you are going to have to go through some steps on the way. You are going to have some frustrations, and it's not all going to happen as easily as you thought it should."

I can't remember if I told you last time, but when I look back now at the Shuttle Student Involvement Project [for Secondary Schools, an annual competition which invited students to propose experiments for flight aboard the Space Shuttle] and how we got through that program, and got those first experiments on board—originally, they sent me a note back that said, “Do you expect to fly these things?” Carolyn [L. Huntoon] and I were reminiscing about that yesterday. And I am not sure I would try it now, because I know all the barriers there were.

When I was here as a GS [General Schedule civil service pay scale], I didn't know the rules. I didn't know what all the barriers were going to be. I just thought, “Well geez, this is a great idea. Let's fly some student experiments.” So I am hoping there are a lot of young people like that coming in now that will have that same naiveté of wanting to move things forward, and not letting the system crater their career or disenchant them too soon. I mean, that'll happen soon enough.

I should also say that on the other hand, I know of a lot of people that are my age—older, a few years younger—that still have the spark, that still have the enthusiasm, and I think that's great. That's also needed, because you need mentors. You need mentors to help bring these kids along, to keep them excited.

I always had wonderful mentors here at NASA. I had Glenn [P.] Wilson, the guy that, as I had said last time, physically walked my paperwork through to get me in the day before the hiring freeze [in January 1981]. Dick [Richard J.] Wisniewski in the Office of Space Flight was just a wonderful guy that helped Dave [David K.] Alonso and me with our careers. He had this great way of keeping us motivated, but also keeping us grounded. There was this line he gave us one time, “Well, of course you guys are frustrated. You are a couple of losers with loser jobs.” And then he would come right back and give us something challenging to do.

Carolyn Huntoon at JSC was a fabulous mentor for me because she really helped break through some of the resistance at JSC for the Shuttle Student Involvement Program. She ended up being the NASA Scientist for two of the [student] experiments that flew on STS-4, and we always kept in touch.

Finally, Sally Ride. She was a few years younger than me, but she was a wonderful mentor because she really did help my career. She brought me along with her to help her out on things, and that's why, to this day, I just miss the heck out of her. I considered myself her side-kick.

JOHNSON: You were talking about inspiration. We talked to Charlie Bolden on Monday, and he was talking about NASA inspiring people. He said what he would tell people is that you can't inspire people until you inform them first. That goes along with what you were saying, that you have to inform people.

LADWIG: And that's what public engagement was all about. What are the exhibits that you take that are going to inform people? It's not overly complicated, but it'll get them interested, get them excited. What's the collateral material that you give along? Is it a poster, is it a pamphlet, is it a badge?

By the way, that was a little kerfuffle along the way. The CFO [chief financial officer] office kind of got upset about the number of space chum that was being produced. [NASA] Stennis [Space Center, Mississippi] put out a chili pepper that was like a keychain or some crazy thing that had "Stennis." That got to the attention of the CFO. It was this little thing, but it was like, "How many other things like this are there?"

So there had to be put together a panel, which I was on, determining what you could and couldn't produce for programs. Did every program need their own lapel pin? Did every program need an emblem, a patch? As a result of the review, significant restrictions were issued. You could have a patch, and you could have a lapel pin, but, for example, those little foam astronaut dolls were not allowed. You couldn't have things that didn't have a lasting legacy or some use. It was a little bizarre. I thought it probably went too far in one direction, but things had gotten a little out of hand.

One of my favorite examples was the space communications people, the ones that deal with the [satellite] dish. That's not exactly a huge public interest thing, it's not something that the public is going to really excited about. "Oh, NASA has this network of dishes." But they had brochures, they had lapel pins, they had patches, they had all of this stuff. It was like, really?

The other problem was that program offices had the money to produce all these things. My office, which was supposed to be distributing items to the public, didn't have any money to do it. We would have to try to convince a program office to work together on it. That was always one of the challenging parts, how do you influence the direction when you have the responsibility, but you don't have the money.

The program offices could either decide yes, they would cooperate with us, or they would tell us to go pound sand. We experienced a little bit of both. In the end, I thought the Communications Coordinating Council started taking steps in the right direction. I haven't checked in with anybody there lately to see how it's going, but I am hoping that that has made some—it has to, because if nothing else the budgets for collateral materials are being cut back.

JOHNSON: You mentioned that one of the things you wanted to do—and it's of interest to me—is the History Office. You wanted to bring the History Office back under Communications, and you felt like you could give it more of the attention that it needed. During your time, you also had to fill that Chief Historian position. Do you want to talk about that a little bit, and what you were looking for in a chief historian? The other chief historians had different backgrounds than Bill [William P.] Barry [selected in 2010].

LADWIG: Yes. That became a little controversial, actually. I love history, I love space history, I had this huge library of space books. I can't remember where it was when I formed the Office of Policy and Plans, but I thought it was important to get it then. Then when Policy and Plans was abolished, it ended up in International Affairs. When I came back, I thought it's not a natural fit there. I thought I could give it more attention that it deserved.

Also, by the way, I used it all the time. When I set up the Office of Policy and Plans—I forget who was helping me do that at the time—we went down to the archives [NASA Headquarters Historical Reference Collection], and we pulled out all the files we could find on previous policy or planning offices. I can't remember the exact number now, but in '94 I think the policy and planning function had been reorganized 17 times. At that time, NASA was 25 years old or something. There has got to be a reason the previous offices hadn't lasted very long.

A lot of offices—you have Space Science with Earth Science, without Earth Science, with Life Science, without Life Science—a lot of organizations change, but 17 times in that short of a period? So I wanted to understand why didn't it sustain over time? We looked in the files of who ran things back then, and we called them and talked to them. We pulled out org [organizational] charts. Had we not had a History Office that had all that stuff, you'd have been

reinventing the wheel. I didn't want to reinvent a wheel unless I knew why the wheel wasn't rolling longer in the past.

My advice to program managers—and even young people when they come in—is go down to the History Office, look up files, see how things were done. Or even go there to read about other NASA managers. I used to go down and always look at Jim [James E.] Webb's [second NASA Administrator] speeches. They were wonderful to me, because here is a guy—a former Marine pilot, bureaucrat, Bureau of the Budget—but he gave a pretty good speech. I don't know who wrote them for him. Things like that, I mean, the History Office is chock-full of knowledge that I don't think people take enough advantage of. So to me it was a passion, and something that needed to be taken care of.

When [Chief Historian] Roger [D.] Launius went over to the Air and Space Museum, we had an opening. One of the challenges we had was the veterans. If there was a veteran, you had to hire them first. We only had one veteran who applied—I mean, I am a veteran, and after my wife left NASA she went to the Veterans Administration—but this guy just wasn't qualified. Rather than hire an unqualified person, we pulled the whole announcement back and said, "Okay, we have got to rethink this."

I had met Bill Barry in Paris when he was in charge of the NASA office for ESA [European Space Agency]. That's when we first got to know each other, and he was my host. Somehow, we must have gotten on the topic of history because he was always in my mind as a potential candidate. He was reluctant to apply the first time because he didn't want to make it seem as though he was being un-loyal to International Affairs [Office of International and Interagency Relations], who had given him this great opportunity to be the head of the NASA-ESA office.

The second time around—and there just weren't any clear, outstanding candidates that had even expressed interest—I said, "Bill, think about it again." He did, and he impressed the committee that conducted the interview. It was my decision, but I had other people talk first and interviewed the other candidates. We gave other people a chance. I just thought he would bring a little different perspective.

I know he wasn't, quote, a "historian," but I thought he was a good writer, he had been a former military guy, so he knew about discipline, and I thought he could manage. I felt that was a little different way to go. At the end of the day, I felt comfortable with Bill. I thought he would do a good job, and I think he has. I don't check up on him, you would have to talk to his people. Every now and then, there would be some issues where maybe staff didn't like a direction he was taking, but that goes with the job. We all do things that your staff isn't always going to like.

JOHNSON: Yes. And it's Steve [Steven J.] Dick who was here before him.

LADWIG: Oh, right.

JOHNSON: Roger had his way of doing things, and Steve Dick did things a certain way. Because he is not a historian, Bill Barry's got a different perspective on things.

LADWIG: I think if you look back now over the—it must be close to seven years he's been there—there is a good legacy of publications that have come out, under very difficult budget situations. Oh my god, in Communication, when News Media and Public Inquiry got together to

work on the budget it was like, "Oh, History, well, we can cut them back." And I would go, "Wait a minute, wait a minute. Not so fast." Travel got cut back. Some of the Centers don't have a history function at all. I thought Roger did a good job of trying to advocate to have history represented at all the Centers. Do we have a historian at Goddard now?

JOHNSON: No, there is an archivist only. And that's why I was interested—you were talking about all of that stuff that was in the archives, but there isn't necessarily a history presence at every Center.

LADWIG: That's right. I think archivist was the compromise we ended up with. But again, it was a budget issue. "Well, we don't have a billet for that," or whatever the reason was.

I think some good publications came out. I think we have covered the major programs, and I think we've even covered some of the things that weren't necessarily as well known, but were important. My hope for History now—I don't know how you would do this, but when Jennifer [Ross-Nazzal, JSC Historian] was here last time I think we all talked about it a little bit. Boy, *Hidden Figures* [2016 book and film]. How many other stories are there like that in the archives? There have got to be lots of them. Maybe you end up overdoing it, I don't know—how many space stories will the public be interested in?

In fact, I meant to cut this out for you and it got lost in the shuffle. The *Washington Post* [daily newspaper], about a month ago had a story about deaf people that helped with the space program [Sarah Larimer, "'I wanted to serve': These deaf men helped NASA understand motion sickness in space," May 5, 2017]. They were from Gallaudet [University, Washington, DC]. I meant to call Bill on that one to see if he knew anything about it, because I had never heard of

that before. There was a nice little feature article, and immediately I thought, "Oh, here is another story that would be interesting, and it would appeal to a whole different—." With public outreach, you want to try to show the public how do they fit into space? Where can they see themselves, identify? The astronauts are great at that because people are excited about astronauts, but sometimes I wish we could feature the other things as well.

I always meant to talk to Bill about this, because in the history Twitter they always celebrate astronauts' birthdays. Well, what about somebody else, some other well-known manager or Center Director or something? Why is it always just the astronauts? There are stories out there that I hope will be told. As I said, maybe there becomes a point where, "Oh god, another NASA story. Who cares?" But on the other hand, how many science fiction movies are out there?

That's my thing with history. All my files that I had over time—and that started back from 1975, when I first came to DC—I gave them all to the History Office. I have been a little surprised that they haven't done anything with them yet. In fact, when I was here last time and I poked my head in, they said, "Do you have any more files?" I said, "Yes, I probably do." They said, "Well, we are kind of waiting for that until we go through the rest of them." I thought, "Oh, okay." I am sure someday, somebody will go through them and put them where they need to be put.

JOHNSON: But at least they are safe, and you know where they are.

LADWIG: Yes. They are safe, and I know where they are. It's a little different than my toy collection. I had this toy collection of 3,000 space toys that I donated to the St. Louis Science

Center [Missouri]. I started it in '82, with a little windup NASA Shuttle. Then that grew into 3,000 space toys and memorabilia, and it took up our entire basement.

A friend of mine, Bob [Robert K.] Weiss, who is now the head [President and Vice Chairman] of XPRIZE [X Prize Foundation to encourage technology development]—he was a college friend, and he had a big space toy collection. A mutual friend of ours, Gregg [E.] Maryniak, was at the St. Louis Science Center. Bob started having kids, and his wife said, “We need the basement, this stuff has got to go.” He and Greg talked and decided he would donate his stuff there. Then my wife talked to Bob’s wife, and my wife says, “Oh, so it can be done?”

Gregg called me, and he gave us this vision, “We are going to have the world’s largest space toy collection here at the museum.” I thought, “Oh, great.” What was important for me was for people to see it, because any time anybody came to our house, especially little kids, their foot hit that bottom stair and they saw all that stuff, and they would go “Boing!” They got really excited, and I loved that feeling.

I inventoried everything, photographed everything, packed it up, and shipped it out several boxes at a time. Then I went there for an event a year or two later and I said, “Where are my toys?”

“Oh, they are all in the warehouse.”

I go, “What?” Well, they had a new director. Gregg Maryniak had left, so things change. I let them know I was pretty upset about that, but the fine print is, you give it to them, they don’t have to put it on display.

Then Valerie Neal [curator at the National Air and Space Museum], who I worked with on the *Discovery* event, said to me, “Well, we are sure looking forward to your toys.”

I go, “What? I offered them to Jack Dailey, and he told me he didn’t want them.”

She and [Curator] Margaret [A.] Weitekamp said, "Well, we didn't know about that."

I said, "Go talk to your boss." I have been trying to work out a deal ever since that. If the St. Louis Science Center isn't going to display them, maybe they could loan them to Air and Space. If, in fact, Air and Space wants them now.

I got sidetracked there from the archives story. My message to any young person would be go check out the archives. Just spend a little time—look at a program that interests you, go see what memos [memoranda] were written about it. Who was in charge, what did they say, what were the speeches about? I think they could learn a lot that really would be helpful for your career. That's the advice I always give people. That, and get a mentor. Get a mentor, be a mentor.

JOHNSON: You mentioned Sally Ride as being important to you. I read that she actually turned down the Administrator job in 1992, when President Clinton wanted her to be the Administrator.

LADWIG: Yes. She called me and told me about it. I said, "You turned it down? I always hear the story that you don't turn down a president." And she said, "Well, I did this morning." It floored me. From a selfish reason I thought, "Okay, chief of staff here I come." But I think it was the right decision for her, she wouldn't have been happy as Administrator. She wouldn't have liked going up [to Capitol Hill], taking guff from congressmen and senators. She wanted to do things, and she still was doing research herself. She was doing research then, I guess she must have been at [University of California, San Diego] at that time period. She wouldn't have been happy as Administrator, so I don't know that she'd have been all that effective. Because part of the Administrator's job is being out there selling, and smiling as you do it. I mean, she

gave great speeches. She got top dollar for giving speeches, and a speakers' bureau represented her. I just don't know how much she enjoyed that, and I think she was happier doing what she was doing.

JOHNSON: You have also been involved your whole career with some of the same things she was involved with, as far as education and the push for STEM [science, technology, engineering, and math] during the Obama administration. I wanted to get your thoughts on maybe some of the changes that are proposed for science and for education at NASA [under the current presidential administration].

LADWIG: I think it's sad what they are proposing. It looks like NASA education is in the going-out-of-business mode. I don't understand that. The argument you always hear is "NASA shouldn't be involved in education." Well yes, I think it should. Again, because the country needs scientists, engineers—they need a scientific-literate populace, and I think NASA does a good job at that. The argument is "It's the job of the Department of Education to do that," but they don't focus on subjects like that.

What is very distressing to me is, if it ends up being the case—it looked like the Space Grant Consortium [NASA National Space Grant College and Fellowship Program] is being zeroed out [president's budget request for fiscal year 2018]. To me, that was one of the great education assets we had. I don't think it was used as well as it could have been, but every state has these consortia. NASA gives it money, and then they have to go out and raise money as well. This thing has been going on now for it's got to be close to 30 years, 25 at least [since 1989].

The colleges and universities within a state, and organizations and companies, would collaborate together. That's an extension of having more bodies out there doing stuff that NASA can't possibly do. And now, to see it zeroed out—I am hoping the Senate will ignore that and put the money back in. It affects every state, so of course they are going to be parochial about it, which is fine.

It's disappointing to see that. It would be one thing to eliminate it if you had a plan of how you are going to do this function instead, and I don't see where that plan is coming from. Mike [Michael A.] Kincaid, I understand, is the Acting [Associate Administrator for Education]. He is a good guy, and I am sure he is trying to figure that out. But he can't do that on his own if the White House—or whoever is making these cockamamie decisions—isn't going to help, be involved, and give an idea of what did they have in mind? Otherwise, you are spinning your wheels. I think it's unfortunate. Since I started in education, to see that now is very disappointing, very disappointing.

JOHNSON: Also, another Texas senator [Ted Cruz] wanted to look at the Outer Space Treaty [on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967)] again, and maybe see if it needed to be reformed.

LADWIG: I am sure there are some people happy about that, especially commercial people. I think the commercial people kind of feel if they can get there, it's theirs. I think I told you last time that when Jim [James W.] Benson, who had started SpaceDev [Inc.], came in to see me in the mid-'90s in Policy and Plans, he was thinking about asteroid mining back then. He said, "If I

go and mine an asteroid, what's the laws on mining that, and how can anybody stop me?" I said, "Well, it's a good question."

In the Outer Space Treaty, there is probably "for the benefit of all humankind." But commercial people have never been especially happy with that, because it's like, "Well, why can't we? If we are going to invest and we are going to make this happen, why can't we benefit from that?" It's a good question.

I am not necessarily against the idea of re-looking at a treaty that's 50 years old, because things have changed. It's a matter, though, of what is your vision? What is the vision that that ought to be? Is this going to be written by the commercial guys, the lobbyists or something? What's NASA's view on that? I don't know who does policy here these days, so it's hard to say. I can't fault anybody for re-looking at it. Then, will it be approved? Will we be a part of it, or will we join Syria and Nicaragua and be against it, like we are with the [2016] Paris [climate] accord?

JOHNSON: You talked before about the two presidential transition teams with Clinton and Obama, and the differences. I wanted to talk about the teams themselves, and what your responsibilities were during that time for both of those teams, and maybe what you feel like your contributions were.

LADWIG: On the first one, Sally called me up because I had been in charge of the Spaceflight Participant Program [Teacher in Space and Journalist in Space projects]. After the [1986 Space Shuttle *Challenger* STS-51L] accident, we weren't going to be flying anybody any time soon. I was kind of in a quandary of, "Okay, now what do I do?" That's when Carolyn Huntoon put me

in touch with Sally, because Sally came to Headquarters to do the Ride Report [“NASA Leadership and America’s Future in Space: A Report to the Administrator” (1987)]. I think I told you that story.

We got along really well, so I helped her maneuver through Headquarters. Not that she needed a lot of help, she is a smart person, but she didn’t know everybody, and there was administrative stuff that she didn’t need to deal with so I was taking care of all of that. We worked well together, and we wrote well together. We had this Terri Ramlose from SAIC [Science Applications International Corporation] that was also the co-editor on the report, and we all did a really good job of working together.

Then when she became in charge of the Clinton—it was called the Science, Technology, and Space cluster. They had “clusters,” Transportation cluster, Defense cluster. She called me and said, “Can you come help?” I was at SAIC at the time, so I asked SAIC “Would they loan me over?” and they said yes.

My role was pretty much like it was here at Headquarters, it was to help with the administrative side. It was help with the correspondence, set up the meetings, who did we need to bring in to brief? We had NASA, we had NSF [National Science Foundation], we may have had NOAA [National Oceanic and Atmospheric Administration], I don’t remember. There were some other science-related organizations that we looked at. And we had a pretty big team of people to help. My role was to help coordinate the team, do the staff meetings, and bring people in to do briefings.

In the end, there was a single-volume report written and there were two copies: one that was supposed to go to the White House, and one that I think Sally had. Whether or not that was ever read by anybody, I don’t know. The Administrator at the time was [Daniel S.] Goldin.

Well, he had already been here [appointed by President George H. W. Bush in April 1992]. I don't think he really cared what our transition team put together because he had been here, had had a vision, and he knew where he was going. Plus, he had heard that the transition team wanted to get rid of him, so he wasn't going to be all that eager about what we thought about anything.

The difference with the Obama team was Lori called me up. I was at WBB [Whitney, Bradley & Brown, Inc.] at the time, consulting. Again, I had to ask to be loaned over, and I started right away. That was different. We only had five people on the team, and we were here at Headquarters. Whereas with the Clinton group, we were over on an office building over on Mount Vernon Square [Washington D.C.]. Our responsibility was to gather information.

I think I pretty much dealt with coordinating the briefings we got from everybody, calling different people, "Can you come in and tell us what's going on?" Then we had to write all this stuff up and assemble it into books. We ended up with probably 15 notebooks full of stuff. I don't recall that there was a single report, and again, there were two copies of everything. We had one up in the front office that stayed in a cupboard somewhere, and I guess the other information went out somewhere over at the White House. Whether or not anybody read all of the briefing books is hard to say. It was good to gather it all, but nobody is going to sit down and look through 15 volumes of presentations.

I was reflecting on this with Shana [L.] Dale [former NASA Deputy Administrator] when I heard she was here on the [Trump] transition team. Although I have heard she has left now, have you heard that?

JOHNSON: I haven't heard.

LADWIG: I said, "Yes, during the transition they all come and give you plenty of information about what they are doing. But once you get in and become a political appointee, all of a sudden they don't want to talk to you. They don't want to give you any information, because you don't need to know all that stuff, and you don't need to know what they are spending." It was funny.

They were just different philosophies between the Clinton and Obama transition approaches. As I said, one big team, one small team. Small report, lots of reports. Of course, the other difference was with Lori then becoming the deputy, she had been exposed to all that information. I am sure it was helpful to her, because she was able to sit in on the briefings at the main Obama transition office. And had them before she was appointed, before she had to do her hearings, so she was very well-briefed going into her hearings.

Charlie had access to all that information, but I can't remember how much he looked at. I mean, I know we briefed him a lot before he went up to do his hearings. And he did well, he wasn't controversial. So those were the differences.

JOHNSON: During your time, you had a chance to work under, or around, or close to, various NASA Administrators. Talk about some of the differences in management style.

LADWIG: When I first came I was in Education, and then [James A. "Jim"] Abrahamson brought me into the Office of Space Flight for the Shuttle Program. I didn't have a lot of interaction with Mr. [James M. "Jim"] Beggs, but I admired him. He was a no-nonsense Administrator, straight shooter. Didn't seem to smile a lot necessarily, but seemed like just a distinguished gentleman, and he spoke well. I interacted with him when I went to—I think it was STS-2 [Shuttle launch].

I was one of the hosts for the VIPs. That's back in the days when NASA took a plane down, full of congressmen and staffers and all kinds of people, the good old days.

My most direct interaction with him was during Halloween. I had made a costume that looked like a Space Shuttle, an orbiter. General Abrahamson was meeting with some admiral or something first thing in the morning. This was in the early '80s when they were discussing maybe having a fifth orbiter. I told the secretary, "Go in and tell him that we have found the answer to the fifth orbiter," and I burst into his meeting wearing this costume. Abrahamson was a great guy, a good sense of humor. He laughed, he thought it was tremendous. It was a Monday morning, and he had to go over to the Monday morning kickoff meeting with Beggs, where all the AAs would come together in the conference room. He said, "I want you over in the conference room at 9:05 am. Timing is important, be on time."

I go waddling across the street. We were in the Maryland Avenue building, so I had to come across the street wearing this thing. It was huge, it was over six feet tall. I came in the elevator, came up to the Administrator's office. The secretaries are rolling. They go, "Oh, you're what they're looking for." And at 9:05, the secretaries opened the doors to the conference room. At that exact moment, Abrahamson is saying to Beggs, "Sir, over the weekend, we found the answer to the fifth orbiter."

I go bouncing in, and I am dancing around. I can only see out of a little slit for my eyes. Everybody was roaring, except Mr. Beggs. He kind of smiled, and then he leaned back in his chair and he looked me right in the eyes. He said, "Now, do you mind if I get on with my meeting?" I said, "No problem." By the end of that day, somebody got a call from OMB wanting to know what all this talk was about a fifth orbiter.

I did interact with Mr. Beggs quite a bit through the Space Flight Participant Program. He was involved with the related press conferences and spoke to the teachers at the national conference.

I got to know Mr. Beggs years later on the NASA Alumni League. Both when I was in and out of NASA I was on the Alumni League, and when I was the head of Policy and then again as Public Outreach, I was the liaison with the Alumni League. They would have a meeting here at Headquarters every year, and I would work with them to set up the agenda. He was such a nice guy, so easy to work with, and, again, distinguished. Always had a [William] Shakespeare quote that he could fit the occasion perfectly. His mind must have had this index that he'd do the Rolodex [rotating file system] thing, "Okay, I need a Shakespeare quote about inspiration."

I have tried to stay in touch with him. He had a terrible thing where his daughter died several years back, and then his wife passed away last year. I keep thinking I should just call him and see how he is doing. I always wanted to meet Jim Webb, because I admired him so much. I used to say, "Well, I should just call him and see if I could go over and talk to him." I never did, and then he died. If you push this stuff off too long—we are all getting older.

So that was Beggs. Then [James C. "Jim"] Fletcher. I dealt a little closer with Fletcher because of Sally. We would go in to brief him about what we were doing with the Ride Report, and what the status was and how things were coming along. He was a little unusual in that he did not like you taking notes. I was fastidious in taking notes all the time. I had the record books and notebooks. One day he says, "You don't need to take notes on this." I said, "Oh, okay." I would always have to try to remember what was said so I could go back later and write up my own notes on it. I thought that was interesting.

He was an interesting guy. Again, kind of a straight shooter, not the most humorous man you'd ever run into, but well-respected. This was his second time around [as Administrator], so he knew the agency well. Did I tell you the story where he talked to me about coming in his office to dream with him?

JOHNSON: No.

LADWIG: After the Ride Report, one of our recommendations was have an Office of Exploration, and I set that office up. Sally went back to Stanford, I set up the new office. A guy from JSC was our AA, John [W.] Aaron, who had been well known in the Apollo Program. He would go home every weekend. He would leave on Fridays, come back Mondays. On a Friday, Dr. Fletcher calls the office and wants to talk to John. He wasn't there, and it was Dr. Fletcher calling direct. He said, "Well, who is in charge?" There wasn't anybody else around. I was the director of what was called Special Projects, so the secretary said, "I guess Alan Ladwig." I get on the phone, I said, "Yes, sir?"

He said, "What are you doing?"

I said, "Well, I am here working."

He said, "I want you to come over to my office and dream with me."

I go, "Okay, I'll be right over."

We were in a building a couple of blocks away. I go over, and he has me come right into his office. The first question out of his mouth is "What's the trajectory we are looking at to go to Mars?" I am a policy/communications guy, I had no idea what he was talking about. I said, "Sir?"

He said, "Well, let me put it a different way. How many people are you guys looking at to send to Mars?"

I said, "Well, we are thinking about one scenario where we might send four, another scenario there may be six."

"Too many, too many."

I go, "Excuse me?"

He said, "Too many. You need to send one."

I said, "One?" And I said, "Well, sir, I am from Illinois, and in Joliet, where there is a prison, we would call that 'solitary confinement.'"

He looked at me like that was one stupid comment, which it probably was. I don't think he knew what Joliet was, and he wasn't amused. He was on a roll. He said, "Some of the greatest explorations have been done by single individuals, and we could really beat the Russians if we sent one person."

I said, "Yes, but what if they get sick along the way?"

He points his finger, "That's exactly my point. If there is one person, there is nobody else there to infect him." I swear to god, I thought he had lost it. I couldn't believe it. Then he went over to his bookshelf, and he wanted to show me whoever—it was either South Pole or North Pole.

JOHNSON: Oh, [Roald E. G.] Amundsen? Admiral [Richard E.] Byrd [Jr.]?

LADWIG: Byrd, single individual [solitary Antarctic expedition, 1934]. Of course years later we find out it really wasn't single at all [controversy over whether reached North Pole in 1926]. "I want you guys to go back and look at that."

I said, "Okay, I'll do it." John Aaron gets back on Monday and I go, "You are not going to believe this one." I told him, and he thought I was joking.

He said, "Oh, quit screwing around."

I said, "John, I swear to god, I am serious."

And he said, "Well, that just doesn't make sense."

I said, "Don't tell me. Go talk to the Administrator." So, we never really looked into sending a single man, but that was my one and only one-on-one meeting with Dr. Fletcher, god love him. And who knows, maybe he was just trying to think out of the box. It was certainly out of the box. Could you do something faster with one person instead of having to take care of a lot? Yes, maybe. Anyway, it was highly amusing to me.

So that was Fletcher. I left in '90, came back in '93 with Dan Goldin. I got along with Dan pretty well from the beginning. I had actually met him on a plane going from San Diego, where I had had a meeting with Sally and I had attended a conference. He was at TRW [Inc.] at the time, and he was one of the speakers about Mars. He gave a rabble-rousing speech that all of a sudden made me a believer again. This was after my Office of Exploration downfall—not "downfall," but it really didn't go anywhere. I saw him on the plane, and I went and introduced myself. I said, "I really thought you did a great speech, and your ideas were great." He said, "Well, keep in touch with me."

Then he ends up being the Administrator. When I met him during the transition, he did want me to come and be an appointee. I think he was actually a little frustrated at how long it

took, because he wanted me to help him do stuff. I didn't get in until October, and then worked in the Administrator's office doing odd jobs for him, and that's when they asked me to set up the Policy and Plans office. But he was always very supportive.

He was an interesting person. He had his ups and downs. They used to call him "Captain Crazy" out at TRW, evidently. He would yell at people, but he had a good sense of humor I thought. Socialization wasn't his best skill in dealing with people, but he had a clear vision of where he wanted to go. It was kind of fun to work with him.

I mean, he yelled at me several times. I remember for the NASA 40th anniversary in 1998], our office was in charge of a big event we were going to have in the auditorium. It was all set, then Legislative Affairs comes and said, "You have got to change the day or the time, because Congress is going to have a hearing then."

I flipped—my own fault, I had a bad temper. It was like, "We did all this work, and now all of a sudden everything has got to change?" I said, "Well tell Congress we can't make it that day." I was screaming at the Legislative guy. Dan came down to calm me down, which is funny because usually you are calming him down.

He says, "Alan, your problem is you are too up and down."

I said, "Well, I have learned from the master." We got kind of a chuckle out of that.

There were people that didn't like him, but say what you want, he lasted 9 years for whatever reason. He had a vision, he tried different things. He had a flat budget the whole time that he had to deal with, which couldn't have been easy. He talked to different people. I think his legacy will be appreciated years down the line.

He showed up at my going-away party wearing a Spock [fictional character from *Star Trek* science fiction TV/movie series] costume, complete with the uniform and the ears. I was so

touched. To have a NASA Administrator put on a costume? Ed [Edward] Heffernan, my friend and fellow political appointee, who by then was his chief of staff, had talked him into it. Afterwards he told him, "Ed, never again. Never again." It really touched me. He gave a nice tribute to me when I left, and we stayed in touch over the years. Not as much lately, but I get a Christmas card from him and his wife every year. He was an interesting guy.

I never knew Sean O'Keefe really. I mean I knew him, but I didn't work for him. Then I came back working for Charlie. I had met Charlie as a civil servant when he was an astronaut. During that time we got along okay. I was always a little irritated that he let the Congressman Olson thing screw me over, but he was supportive. As a deputy, I didn't have as much direct contact with him as I did with Goldin as an Associate Administrator, but I thought he did a good job. I was happy to support him. One time he was going to go over to the White House to talk about communications, and he was going to take Morrie and maybe Bob Jacobs. I said, "If you wouldn't mind, I would like to go along."

He said, "No, I have picked who I want to pick."

I said, "Oh, okay." But I thought it would have been good for me to know what the White House thought about communication.

So that's my experience with the Administrators. It's a tough job, a tough job to be an Administrator. I don't know why anybody would take it, especially now with the budgets the way they are. It looks like NASA's getting bumped a little, but not enough to go to Mars, not enough to do everything. I think it's sad that they are cutting way back on Earth science. I think that's an important function for NASA.

I think anybody that serves as an Administrator is really serving the country well. It's a difficult, challenging job, and when you see the success we have had over the years, even with

the two [Shuttle] accidents, I think Administrators have served NASA very well. I think we have had some great ones.

JOHNSON: Speaking of challenging, what would you say was the most challenging time for you?

LADWIG: I think the most challenging time was getting the Spaceflight Participant Program set up. The “Holy Grail” was a private citizen. Of course the astronauts always said, “Well, we are citizens.” I would have to tell them, “Yes, but you don’t count in the same way.” So how do you do that in a fair way?

The first difficult decision was made by determining it would be an educator. Then, out of all the educators out there, how do you set up some criteria that’s going to be fair, that’s going to be self-selecting in some ways? You want to get through this thing without a lot of controversy, without a lot of people whining, “How come I didn’t get to go?” Because we were having that already. Even once we picked “educator,” we started getting all the mail from people about “How come we are not picked?”

Finding the Council of Chief State School Officers was brilliant on our part. I can’t remember—maybe I came up with it, I don’t know. We found them, and they helped us so much to figure out the criteria. You had to be a teacher for five years, full-time, no administrators. Then when the complaints came in, we could say, “Hey, the council is running this thing. Talk to them.”

We got through that, and I think there was one teacher in Oklahoma who decided he was going to put an injunction against us because he couldn’t apply because he was an assistant principal or something. But other than that, the fact that we got through that without any

controversy, that we found good teachers all over the country, and that we were able to keep them engaged as long as we did after the program—I thought that was a challenge that we survived through.

Then we had to go through it again with the journalists. That was even tougher. Well, who is a journalist? How do you make that decision? I think doing that today would even be tougher, because now we have got cable news 24 hours a day.

JOHNSON: And social media, and blogs and everything.

LADWIG: In fact, that's a good example. When social media started, my friend Keith Cowing from *NASA Watch* felt he should get press credentials at NASA events. NASA's attitude was, "You are not the press." He goes, "Oh, really?" He was ahead of his time on that in terms of social media.

We found this association of deans of journalism [Association of Schools of Journalism and Mass Communications]. They were harder to work with because they were a little more cynical about the whole thing, but they helped us figure out a way to do it. Again, there could have been more controversy about how we did that, but there wasn't. We figured out a way to do it, and we ended up with great candidates in the end.

The next one would have been—and I don't know how we'd have ever done it—the artist in space. But that was the direction we were leaning, and I tried to work with the National Endowment for the Arts on that. Because of the *Challenger* accident we never got to that point. I don't know how we would have done that.

JOHNSON: How do you define art?

LADWIG: Who is an artist? I do found-art sculpture, am I an artist? Would I get to apply? Is it if that's how you make your money? I don't know how we would have ever done that one. There are thousands of teachers out there, but there have got to be millions of artists, so trying to figure out how to do those things fairly. A similar way with the Shuttle Student Involvement Project. Your goal is public engagement. How do you do that in a manner that is fair and equitable? Of course not everybody can be involved, so how do you do that?

In some ways, now that I am with the Star Harbor Space Training Academy it's going to be fun because we are going to have this public engagement opportunity for anyone. Anybody can come that wants to, all you have to do is be able to afford it. You hear complaints sometimes, "Oh, suborbital flights are just for rich people." You can do lotteries, you can do promotions, a corporation could sponsor competitions. There are going to be a lot of people who will get an opportunity to fly.

NASA couldn't do that. People would say, "Well, why can't NASA have a lottery for the Shuttle?" You couldn't do it, and there were legal reasons why you couldn't do it. So in a way, I am in a much more freeing atmosphere of, "Geez, I don't have to worry about telling people no. I can tell everybody yes." You can't afford it? Well, let's figure out a way to make that happen for you. I am very excited about that, I think it's going to be fun.

JOHNSON: It sounds like it. Is there anything we haven't talked about that you wanted to mention before we go?

LADWIG: I think we kind of hit it all.

You talked about Administrators. I will say the greatest Associate Administrator I ever worked for was Jim Abrahamson. He was just a gem of a guy. Air Force general, but he wasn't like generals I have met that were very high on themselves, you salute and all this crap. He was a real guy, just as nice as could be. The thing he did—and maybe other AAs have done it. I certainly did it, because I learned from him.

This is when I was a GS-7, and I thought an AA was really big stuff, man. "An AA is going to come and talk to me?" He wouldn't make people come to him. He would walk out in the hall and all of a sudden pop into somebody's office, and just sit down in the guest chair and talk. That made such an impression on people, because it seemed like he really cared about you. There wasn't this hierarchy of nobility about it. It was "How do we work together?" He really formed, I thought, a great team.

It was a little tougher with people down at JSC, because they wanted to run things the way they wanted to run it. As far as they were concerned, Abrahamson was a guy that was going to be here three years and go on, and they'll just wait him out. But I thought he was effective, and I thought his management style was pretty superior. In fact, some organization—I forgot which one it was now—created a James Abrahamson management award. I asked him, "Is that going to be a statue of your head with a foot in its mouth?" And he threw something at me across the room.

He was wonderful, and I learned a lot from him. When I became an AA, I tried to go to people's office, not have any pretense. I probably could have used a little pretense at times. But I learned so much from him. And again, he saved my NASA career. He created a billet for me, and he didn't have to do that. I keep in touch with him to this day, he is a great guy.

[One thing I do miss is the opportunity to give as many speeches and appear on television and radio to talk about the space program. I was able to represent NASA on the *Today Show*, *Late Night with David Letterman*, *The PBS News Hour*, the Entertainment Channel, CNN, C-Span, *Voice of America*, and documentaries on the BBC, The Learning Channel, and Tech TV. I was invited to present keynote addresses for the National Space Society, the Space Frontier Foundation, the American Institute of Aeronautics and Astronautics, the Space Foundation, the International Symposium for Personal Commercial Spaceflight and the International Space University.

I hope to be re-engage in these kinds of presentations in the fall of 2019 when I publish my book, *See You in Orbit? The Long and Winding Road to the Dream of Private Citizen Spaceflight*. It will be the first non-fiction book to take a historical, personal, irreverent, and often-humorous look at the promises, expectations, principal personalities, and milestones regarding the goal and dream individuals have to fly in space.]

JOHNSON: Well, if there is nothing else, I guess we will close for today.

LADWIG: Wrap it up, okay.

JOHNSON: All right, thank you.

[End of interview]