

**NASA HEADQUARTERS HISTORY OFFICE ORAL HISTORY PROJECT
EDITED ORAL HISTORY TRANSCRIPT**

JOHN R. DAILEY
INTERVIEWED BY REBECCA WRIGHT
CHANTILLY, VIRGINIA – JULY 24, 2012

WRIGHT: Today is July 24, 2012. This interview is being conducted with General [John R.] “Jack” Dailey for the NASA Headquarters History Office Oral History Project. Interviewer is Rebecca Wright, assisted by Jennifer Ross-Nazzal.

General Dailey is the Director of the Smithsonian National Air and Space Museum and we are talking with him at the museum’s Steven F. Udvar-Hazy Center in Chantilly, Virginia. We know that you were gone and always busy, so we appreciate you taking the time to visit with us today. Please tell us about your transition from the US Marine Corps to working for NASA. Why did you decide to take on this assignment?

DAILEY: That was an interesting transition. In fact I tell people here at the Smithsonian they’re lucky I went to NASA before I came here because I did a bit of realigning and softening perhaps.

It was probably a very unusual transition in terms of the way it even started, because I was the Assistant Commandant of the Marine Corps and George [W. S.] Abbey approached me about coming to NASA as the Deputy Administrator. It was going to be one of the first times that NASA had ever downsized to any extent or done any major reorganization. They wanted somebody who had had experience in this sort of thing. I think they really wanted somebody who was not a former NASA person who was going to be influenced by the pressures that friendships were going to bring.

I really believe that that was probably an advantage for me in that I had not been raised at [NASA] Johnson [Space Center, Houston, Texas] or Kennedy [Space Center, Florida] or somewhere and now felt that it was impossible to do anything with them. I got my first taste of NASA and its administrative procedures with the hiring process, which was probably the most inept I've ever experienced. Dan [Daniel S.] Goldin told me, "We've got to get you. You have to be over here by July of this year or everything's going to crumble." Well, I submitted my retirement request from the Department of the Navy, and everyone was very upset with me because I was in place; there was no plan for a transition.

They rushed it through as a favor to me. Then I got out and sat for two months while NASA tried to figure out how to hire me. I was going to meetings. I was meeting with people. In fact Alison [L.] McNally who ended up being my exec brought me reading materials. I would meet her over in Crystal City [Virginia]. It was just completely unprofessional. I guess that's the way to put it.

By the way, that was beneficial, because I had read every study, everything that had been done in terms of thinking about reorganizations and some of the circumstances that existed, so I was able to start forming some ideas. Not thoughts really in terms of how to do it or even what to do, but knowing what some of the pressures were now that were being exerted.

I started asking questions about how do we do this and how do we do that. Nobody was coming up with any regulations or directives. Really most of them had expired years before and had not been updated. I got a pretty good idea of some of the things we had to do to start that process. So we put a requirement in place. If you were the sponsor of a directive, you had to update it, and there had to be an expiration date on it by which time you would have to update. I

think we gave about five years on that. But you can imagine the moans and groans that arose from that directive.

That really was the foundation for the employees' handbook. It took us a couple of years to actually get that out. Okay, what are the things we do every day? Give me a quick checklist guide on how to do it. NASA likes checklists. They like to operate like that. So it was handy. I think they accepted it very well.

WRIGHT: Can you bring us back to some of the steps you put in place? Did you have working groups, or different types of senior meetings with people that this information would trickle down to the employees?

DAILEY: Well, I tried that. Large groups didn't work. It was too hard to get agreement. Or even to get through the subject, mainly because of the resistance from a very large percentage. So I decided to do it pretty much myself and then put it out for comment. Alison and I worked very hard on doing that. She's extraordinary and had a good background in the agency and had also worked in many different assignments that got her knowledge across the board. She could find anything. We could get it and work on it.

The other thing was we didn't have a plan. Nobody had a plan as to where we were going to go. As you know, the disarray that existed then—because each Center had created a constituency that supported their activities, was very strong in every area. When the decision was made—and I can't really give you the date because it evolved as it happened. We came up with the idea of creating Centers of excellence, where every Center would be assigned a responsibility and then they would be the Center of excellence in NASA for that discipline. We

envisioned even moving people from Center to Center. Aero was going to be [NASA] Langley [Research Center, Hampton, Virginia], so the aero people should be moved there if they were at Ames [Research Center, Moffett Field, California] or at Glenn [Research Center, Cleveland, Ohio] or wherever they might be.

Rocket development was supposed to be at Huntsville [Alabama, Marshall Space Flight Center]. But we had activities at Glenn. Every Center had their own airplanes and were operating them for various reasons. The review that took place on that showed that we were spending a lot of money on maintaining those assets and it would have been cheaper to go out and hire an airplane to do it because we didn't have a day-to-day requirement for it. Well, nobody wanted to get rid their aircraft. Nobody did get rid of them in four years. I would go on trips and say, "Let me take a look in your hangar." I'd see all the airplanes still sitting there that we had decided we were going to get rid of.

In that regard the only successful move I would consider a complete success, we combined our flight section with the FAA [Federal Aviation Administration]. We gave them our airplanes and they operated them for us. We actually gained the advantage of having multiple airplanes, so depending on the size of the group we had the ideal airplane.

One of the requirements was if the Administrator was going to take a trip to Houston then we had to have enough people on the airplane to make it breakeven on the airline cost. So we had smaller airplanes by combining with the FAA. That became much easier and much more efficient, and it saved us \$1 billion. The reason I know that is because we took the \$1 billion out of the budget that we needed for other things.

Another example where we saved \$1 billion was the outsourcing our computer support. That one probably caused the most howls and moans of anything that we did. I couldn't get

anybody active in the agency to take that job of being the computer guru and to manage that program. Now, I can't remember his name but I'm sure it's somewhere in the records. He put in his retirement papers. So I called him. I said, "Look, if you will accept this assignment—"

The reason why people didn't want to do it is they knew after they did it, it was going to upset everybody, and that they would have to go back to their Center or whatever their job was and there would be retaliation. It was that straightforward. They told me that. Anyway, I have this gent who was retiring, and I ask him if he would take it. I said, "What I'll do is you do not have to comply with any directives for the first year. You do this and then we'll write the directives based upon what we're doing, not going through all these reviews and all. So it gives you total freedom of action. I'll back you on anything you want to do. We will get a group together so we have an advisory group to make sure we're not doing something completely outrageous." But at that time when we started this project the average age of computers in NASA was six years. By the time we finished it the average age was three years.

Here's what we did to get to that. We did a desk audit on what the requirements were for computers at each station and the software to go with it. We were buying blanket software. Everybody had everything. Nobody needed all of it. Some of the more scientific and technical people needed different programs. But we were spending millions on copyright for software programs, so we tailored each station. That was not an easy job. It was a big one. It kept getting better.

We finally got through that. Then we ended up with more efficient and better management. Finally everybody said okay, this is working better than it did before. There were some who just would not give up the programs that they had had. It was interesting too. By the way, during the process Johnson [Space Center] put out a directive saying there would be no

Apple computers. Well, you can imagine what happened then. We stopped short of a lawsuit, but we had to go back out and say in fact you will have some Apple computers.

For some of the programs with creative requirements, Apple was more suitable. I'm rambling a little bit here, but those were two major [changes]. Consolidation of aircraft support and outsourcing the computer support were two clearly—and you can go right to the budget and see where it happened because those two budget lines were \$1 billion less once we got incorporated.

That is a good starting point for talking about the difficulties of going to the various Centers and getting them to accept their new Center of excellence requirements. Ames was a very strong flight test center in the old days, but Dryden [Flight Research Center, Edwards, California] was operating and had taken over much of that. Ames still had a lot of old test pilots and a lot of aero people there. They didn't want to be the IT [Information Technology] center. That was a very difficult meeting. I probably was lucky to get out of town on that one because that was a very hostile group. Their one comment to me, "As a pilot how can you do this to us." I said, "We can't think of it that way. What do we need to do as an agency is to stay within our budget and to make funding available for other activities that we want or think are necessary for us to do."

One of the things that Dan Goldin had as the Administrator, he had to sell the [Presidential] administration on what we were doing. It was interesting. Nobody told us what to do, so we wrote our own plan and we submitted it and said this is what we think we should do. The Office of Management and Budget [OMB] and the White House bought it saying, "Okay, that's right. You're headed in the right direction. But then they didn't give us enough money to do any of it. They never had. I don't know how it was before I got there. I've watched over the

years and NASA has never had enough money to do what they're being told to do. That's why they have to make these very difficult decisions that are politically charged. Issues on our future in space and that sort of thing are tough and NASA takes a bad rap. They're not in control of what they're trying to do or what they're being told to do.

The Administrator never has enough money to do it right or to do everything that everybody wants. With these constituencies around the country, there's pressure coming from Alabama, from California, from you name it, Florida, Texas. You better follow the guidance you're getting from individual members but not from the body itself. In fact we never got any guidance out of any group. Congress never said, or the president never said, "Okay, go do this." It was, "It's okay to continue doing that." Of course the Space Station was the number one issue. It drove everything because we had to take money out of every program to fund Station because we didn't get enough to do it.

Interesting, because that wasn't Dan Goldin's idea. He inherited that, but as the Administrator his job was to sell it. It passed by one vote in Congress. So it was a very stressful time where everybody was trying to figure out how to get things done. First of all figure out what we were trying to do. [We] got agreement on that pretty much, but never any strong guidance from anybody outside. The presidential adviser, OSTP [Office of Science and Technology Policy] agreed on things but they never told us okay, you really need to concentrate, this needs to happen. So it was, we would come up with the ideas. We had to sell other people that that was the right thing to do. Then we had to make it happen. But they were the ones that controlled the money, so it was very difficult.

In the meantime we're now trying to get these Centers restructured into their new roles and missions, with resistance at all levels there too. I think I had probably only been there for

less than a month, and we had a group in Reston [Virginia] who was managing the Space Station. They called them Restonians as a matter of fact. We were eliminating Reston. We were going to absorb all of those people back into somewhere. I had not met anybody. I was sent out there to tell those people. Well, actually I said I need to go out there and talk to them. I tried to figure out another way to get it done actually, but somebody's got to tell them what's going to happen.

Boy, that was another one of these hostile environments. Nobody trusted me. They didn't believe what I was saying. I said, "Okay, I'm going to tell you what's going to happen. It's going to happen, so what you need to do now is to start planning where you want to go, how you're going to go, and what you may be qualified to do. We're going to work with you. This is not going to be a hatchet job of any kind." As part of that we had to move 44 SESs [Senior Executive Service] out of [NASA] Headquarters [Washington, DC]. That's more than just the Reston plan. This is everything, because we had too much horsepower in Headquarters. All but 42 of those people took transfers; 2 retired. We had some tremendously successful stories of SESs who've gone back to Centers and just done a tremendous job because of their skills and knowledge that they brought back with them.

They were happy, and so were the Centers that got them. Not everybody was happy, but we would say we had no forced transfers or involuntary transfers. Everybody volunteered, but the proposition they were given made it clear to them that they'd better volunteer. I'm not saying it was a complete success by any means, but I'm saying it happened, it worked, and was completed. We downsized the Headquarters by 52 percent. The idea was moving the skill and the responsibility and management oversight to the Centers, so they were the Center of excellence. We'd move everybody in that discipline there and give them the authority now to

run this. That worked okay. Headquarters was still holding pretty tight reins—everything has to come through us type of thing. There's a reason for that too because they were the ones who were testifying before Congress. They were the representatives here in town who had to sell the program. They had to be knowledgeable and they had to also make sure that it was going—they probably had the best knowledge as to what was being expected of us in terms of what Congress and the White House were looking for.

We had study groups that looked at everything. The NASA Advisory Council. The thing that really impressed me—and you ask about—I know I started to talk about my transition from the Marine Corps. When I left the Marine Corps I was very concerned that I would never find another job that I really—I was born to be a Marine. I loved it. I hated to leave. I thought I'll have to give up on job satisfaction because I'll never find it again.

When I got to NASA I could not believe how great it was, how great the people were, and their motivation and their spirit, commitment to the mission, and their knowledge. Really the intellectual power in NASA is staggering. My favorite saying when I was there was “if you can define a problem, NASA can solve it.” I really believe that. I'm always distressed when I see the press on NASA because it's always a shot. They're an easy target. Really easy target because people say what has NASA ever done? NASA does fundamental research. When that research gets to a stage where it can be developed into a product, a company will take it and run with it. Like Boeing or Dow Chemical, whatever it might be. Their name goes on it, not NASA's. I've had people here at the museum ask me, “What do we get from the space program?” They're talking on their digital telephone. They've got an iPod with them. They don't ever think about the advancements that were made in electronics, avionics, materials, power. All these things were spearheaded by NASA, and universities and other Centers working

together. But NASA, the contribution to this country is impossible to measure. It's much more than anybody thinks.

That was a wonderful experience for me to find out that I was operating with some very fine professionals. Truly in the sense of the word. That made it easier for me. I was dealing with them in a very straightforward manner. I don't know what they think of me. It would vary probably with who you talk to. But I think the thing is this, if I ever tell you that I'm going to do something, I'll do it. So you need to believe that, because it's going to happen. Then after we did these reviews, I said, "Is there anything that I have told you that hasn't happened?" Nobody ever challenged me, so I'm pretty sure we built some trust. I was there for seven years. I would hope most people trusted me, but that would be determined by talking to other people.

WRIGHT: You came a few months after Dan Goldin arrived. Had you worked with Mr. Goldin before?

DAILEY: No. I'd never even met him. They asked me to come over and meet with him. I did. He asked me a few questions about how would you do this, how would you do that. I said well, these are the steps I would take. That's all. Thank you very much. Then George called me and said, "We want to hire you, but you've got to get out of the Marine Corps right away."

Dan and I did not have a close personal relationship. We worked together. He focused on the outside and making speeches and testifying. On the things that he didn't want to testify on I got to do that, but we worked separately. I would say I handled the internal operations and he was the outside face and voice of the agency.

He made a lot of decisions and gave a lot of direction. Then it was my job to incorporate those or to execute the direction that we had. We did have what we called Center Director conferences where all the leadership of the agency would come in. We would meet usually one day but sometimes two or three. We would talk about all the big issues. Nothing was ever solved. We never did anything in there like write anything, but we would form committees. They would go off and do it. Then they would report back.

It was too hard for that size group. Even to break them up into little study groups or working sessions didn't work very well. When you think, we had Earth science and we had astrophysics and we had aviation and we had Space Station. We were working on how are we going to manage the diversity in the workforce and those things. They were all responsible for it but it was just hard for us to get a topic that we could really pursue.

Then they understood. Okay, when we put this smaller group together you're going to have to vote on this thing, and you're probably going to have to vote yes so you better have some input. They paid attention on the way we tried to do that.

We were increasing our education programs at that time, putting more money in them. Interesting, one of the things we tried—facilities in NASA, they were in serious lack of repair. The bill for that was probably \$1.5 billion to do most of the things that really needed to be done. So, one of my jobs was to fight for that facilities budget each year. We tried to keep it at about \$150 million a year.

Dan had a tendency to go in there and take money out of that to fund other things. I'd say, "We can't do this." This is what every organization does because it's easy to do, and it doesn't get the person who's there at the time, but the successor will come in there and everything's crumbling. Well, turned out Dan stayed there long enough to where it was

crumbling when he was there. I think he realized that we needed to boost and then became more supportive of doing that.

But a deal that he made with me, he said, “Okay, I’ll tell you what, at our next senior management meeting you can tell the Center directors that if they want to take any of their money and put it on facilities they can do it. Any of their program money.” I was sure. They’d all come to me and said I absolutely have to have this. So we made the offer. Nobody stepped up to put any money on facilities. So it wasn’t Dan, it was the agency.

It turns out—and I didn’t realize that till I’d been there for a couple years—they had other ways to get money for facilities. If they wanted to get something done they’d get it. They’d take it out of program, but it’d be for a specific thing. It would usually support that program. I’m not sure all of that was legal, because money is appropriated by Congress for certain things. But once it gets within the agency we did have the ability to spread it out. But it was getting done. I bet today the Centers still need major capital expenditures on facilities to get them up to snuff, even safety.

Of course we funded all the safety things first, then the more or less nice-to-have things after that. It was an interesting evolution that I found as I traveled. I visited all the Centers on a regular basis. When I was with them they’d take me to these lousy buildings and say we have to fix them. The only way to do it. I said, “Okay, you’re going to have to. You got to do it. You have to write me a letter telling me it has to be done. Then you’re going to have to stand up and vote when the time comes to put the money in there.”

I would say that we got a pretty good united front on that finally. We had director turnover. The outgoing directors were not anxious to spend their money on facilities. They wanted to get a program finished before they got out. Almost every issue you have in any

organization is there's not enough money to do everything that everybody wants to do. Prioritization is a tough thing to incorporate. People have to make decisions.

WRIGHT: You were in a very interesting position for a good amount of the time that you were at NASA because you were Acting Deputy Administrator as well. Can you share with us the circumstances of how you wore many hats at one time and why that position wasn't filled?

DAILEY: I didn't separate the two. It gave me more power I guess to get things done, but the jobs were the same as far as I was—like I say Dan and I split. I didn't follow him around. I don't think we ever went to the same events together even. He'd go do one or I'd do one but we would not be there at the same time. I operated under my own recognizance I guess or authority. It worked out pretty well. I think it was pretty successful in terms of effectiveness. I think it worked out okay.

I also was the chairman of the Program Management Council and reviewed all the programs. That was an interesting one too because Dan was really the Space Station Program manager. We had a hard time getting information out of the people who were briefing us. Some of my closest friends from NASA are the people doing that now. When I see them we laugh about how they would get up there and speak for a half an hour and not tell us anything. I would ask them questions and not get any answers.

There was a collegiality among the Center directors. It was really good and very strong. It was an, "I'll support you and you support me" type of agreement against Headquarters. It'll be "us against them. If your program needs help I'll help you if you vote for mine." We sorted that out pretty well, but it was tough to get people to think about the agency and not the Center.

That's not unlike the Smithsonian. When I was in subordinate commands in the Marine Corps, headquarters was always the enemy. Oh God, we don't want headquarters to do that. We've got our own little place here. We're happy with it.

One of the things about when we set up this facility out here at the Smithsonian, I said we're not going to have two. It's going to be a single museum. Single staff is going to run both locations. That has been hard to do but we're getting there. It's taken some personnel changes in order for us to get there, but there's no way to completely separate it. The people out here worked for managers downtown, their supervisors downtown. That's the way we finally have gotten to it. We have a senior official out here. She's not the reporting senior on the people here, except for the collection folks. But, that was the mentality in NASA. And also Johnson (Space Center) was the center of the universe, it got all the money, had all of the priority. Everybody else was as they would say, "looking for scraps."

Aero(nautics) took a serious hit when I was there in terms of priority because we were doing all these things to develop the technology required for high-speed civil transport. Congress decided that we didn't need one. I think \$800 million came out of the early budget as a result of that decision. It did not go to space. It left the agency. It was one of those things. When we bet on a program it was pretty much betting the store, because if we lost the program we would lose the cash. They didn't let us reapply that anywhere.

It was not that adversarial between us. We had a very good relationship with OMB. I think they thought we were doing things pretty close to right. Of course the representatives and senators associated with our Center locations were very supportive also.

But they also wanted things, like, "Okay, I want you to put this in my place. When we started that Center of excellence, there were senators saying I don't want that leaving my Center.

So we got a lot of input from them. Of course it was easy for the Center director. The senator would call and ask, “What’s happening?”

“Well, they are moving this from my Center.” We (Headquarters) were the bad guys. It was about the only thing they could do at that time. It wasn’t like they were trying to—well, they might have been in some cases trying to keep it from happening. So it was interesting, it took longer than I thought it was going to.

WRIGHT: When we first sat down one of the things that you mentioned was the political environment. When you walked into the job at NASA there was a big move within the new administration to retool how government agencies did their work and to make government more effective and more efficient. How much of that dynamic impacted how you were trying to change NASA’s way of doing business?

DAILEY: Well, it had to do with the [budget] cuts. I mentioned we cut the Headquarters 52 percent. That’s the kind of efficiency they were looking for. I should mention too when President [William J. “Bill”] Clinton came in and with changeover in administration, everyone is expected to submit their resignations. I don’t know whether Dan did or not, but nobody ever contacted him and told him you’re staying or we want you to stay. He had no mandate from the new president that he was the Administrator. That’s what I mean. He didn’t have the—and this is something I gained an appreciation for after years of being there. The political support that you have from the White House is critical to success as an agency head. Dan didn’t have that. He was not “one of the boys” in terms of coming from being a big political supporter. Most of the people who end up in these positions have supported the president’s reelection.

So he had no mandate as the Administrator. He didn't have the power to go places and say okay, President Clinton wants me to get this done. It never did happen. Then the next term he never even got a continuation letter or anything, so he was at a real disadvantage. I think they treated him really shabbily in terms of just NASA was not high on anybody's priority list.

Now there were political appointees who came over there and worked with Dan. None of them were in positions of management or leadership. They were more or less advisers. I think the only department head that we had was public affairs. I think that is a political position. But even legislative affairs were career civil servants. That may have been an advantage because I was on the President's Management Council as NASA's representative. I was the only civil servant on it. Everybody else was political. I learned a lot on that one, I'll tell you.

They asked me a lot of questions because I was the only one who had any experience in government. When a political appointee is brought in with no previous government experience and put in charge of a department, and their job is to carry out the direction of the president to get things done in that department, it's pretty tough. There's a basic resistance on the part of the professional workforce. They feel, we can outwait this person. They won't be here that long probably. That's true; there is a fairly heavy rotation. Then there was a lack of trust on the part of the political appointees. I had an opportunity at that point to talk about the fact that these people are trying to get the job done for their agency. They need to know the direction and they're ready to work with you. But it was, "I'm not going to talk to them because I don't trust them" type thing.

We had an advantage there. That was one thing I think. Dan was an engineer too. He had not been in government and he was not a big politician type person. He was an engineer assigned to that agency, so we had an advantage of somebody who knew the business and

wanted to get things done. Then we didn't have as many political pressures—probably more on him—I didn't have any. Nobody ever tried to do anything with me. Then the representatives or lower local folks were probably working most of those issues.

I don't think we really had the friction or the problems that some other departments in government had because of it. Some of the stories I heard were just absolutely amazing. When they bring them in, they don't give them an orientation. Nobody gives them the facts of life on how you do this, so they would make tremendous mistakes.

They'd ride first class on airlines. Then they'd find out that they had to reimburse the government because the IG [Inspector General] would get involved. So that was one of the things that I brought to NASA. I knew all the regulations. I knew how those things worked. When I got there Dan had been flying airplanes that should not have been [flown]. When NASA got audited it all came out. But we had already fixed it by then, but he was being poorly advised at that time. "Sure, just go ahead and take the G-II and fly down to Houston." Well, he should have taken something else.

Those are the kinds of things. I think we maybe had a stronger base. Then the other thing that became clear to me very early was that we were not preparing people for advancement in terms of increased responsibility in management. For one thing they didn't want it. They didn't want to go from being an engineer on a project to being the project manager with the responsibility of hiring, firing, counseling, grading people. Almost every personnel problem we had where we had a grievance from an employee was due to an error on the part of the supervisor for not knowing that you can't—I can't even think of a real—well, perhaps saying, "You can't do that because I don't want you to" type of thing, without giving reason.

So we'd get a grievance. My supervisor wouldn't let me do this. Never any documentation. The supervisor was trying to fire the person. They never documented it. They probably had marked them outstanding.

The other thing is close to 80 percent of our SESs were eligible for retirement. People told me you better have a succession plan because what are you going to do when you lose all [of them]? NASA has a very large number of SESs. I think the original authorization was 565 or something. I came out of the Marine Corps where we had six. So that gives you an idea of the contrast there. But it was when President [John F.] Kennedy wanted to go to the Moon. Let them have this authority so they could hire the right people and have a little more bargaining power there.

We didn't have all those positions filled but we had to get ready for how are we going to replace these folks. They had been the ones who took us to the Moon and did all those things, really the heyday of NASA in the leadership. We created a Candidate Development Program. It's still in existence today and it produces people now. What we did, once you were identified. It was competitive to get into it. When you were selected then for example you had to do six months in Headquarters. So if you were in Houston and you were in the program, you got sent to Headquarters.

We set up a school out at Wallops Island [Virginia]. They actually would come in and stay for—I think it was a week. It might have been longer. They lived in the barracks out there. We fed them in a mess hall. Then the leadership at Headquarters would fly out there and give lectures at night. We would have dinner with them and then give a lecture. Then you'd fly back at 9 pm.

They got introduced to all the leadership in Headquarters. It gave them a broader experience. The classes they had were on budget development, program planning, that sort of thing. Then once they completed that successfully they were now certified to be SESs without having to have a competitive appointment. We could assign them to an SES position without going out and advertising. It gave us a chance to promote from within. But then of course what happened is nobody retired. So we ran all these folks through school, created an expectation they were going to be an SES, then we didn't have any slots because nobody left.

We tried buyouts; we tried all sorts of things, but it was years before some of those folks finally got a chance to get promoted. In fact when I came here I wanted to send some of my employees to that course because it was government. It didn't matter. The rules were all the same. We operate under government regs here. I knew how good it was and the people who came out of it.

We were putting people in assignments that we had not properly prepared. Then we were having problems because they were making mistakes because they'd never been trained. I think that was one of the most important things we did. We also had a program managers course that we ran that prepared people for the dangers of being a project manager at NASA in terms of some of the federal requirements. If you violate those you find yourself in serious trouble because of the size of the budgets and that sort of the thing. I think we did a pretty good job of getting people better trained, better prepared for their promotions. We set up a mentor program that was maybe one of the most effective things we did. It was associated with the candidate development. Everybody in the Candidate Development Program got a mentor. We extended that beyond, also, because we had many more applicants than we had slots for in the schools.

The Centers ran their own schools. JSC didn't want to send anybody to our school. They already had theirs. I said, "Well, you're going to do it anyway." But it turned out that it worked out. There were pockets of excellence around NASA that Centers were doing extraordinary things. What we did, we took their program and put it in our Candidate Development Program and even let them teach it, because they were good at it.

I think that we were reinventing, but we were not trying to reinvent anything that didn't need to be reinvented. The pressures on that. I think we went through [William Edwards] Deming. I can't remember. I was still in the Marine Corps on that one too. We called it Total Quality Management. In the Marine Corps we called it Total Quality Leadership. I took that one over to NASA too because it really was what we were trying to do was get quality leaders.

WRIGHT: I believe you made quite a bit of adjustment to procurement.

DAILEY: Gave more authority. Also the thing about NASA was responsibility and accountability was part of the NASA way of life. It's not here. Accountability is a new feature for people in this museum now. If I give you money you say what you're going to do with it. At the end of the time we see what you did do with it. That was already in place. People were very responsible and felt very accountable. As a matter of fact they were emotionally involved in these things, so that part of it really helped.

My point was let's give them the authority to do—they're going to make some mistakes. We make mistakes up here. It also was part of the development. Once somebody's signing their name on something they're going to pay a lot more attention to it. I think that was successful. I

tried it here. We haven't been very successful here getting them authority to purchase. We're exponentially smaller and also in terms of the number of dollars we have.

I believe in giving people responsibility, give them the authority and then let them do it and then help them when you see they need it. Now if you ever run into fraud or something like that then you have to come down like a ton of bricks on people who violate your trust in those cases. It has to be obvious that they really didn't know. They say that ignorance of the law is not a defense, but in some cases it was because they honestly did not know and would have had no reason to know based on their previous preparation.

We did a lot of adjusting. Everything was a case-by-case basis. Anything that had to be determined, the Center directors handled almost everything. Very seldom an issue came to me where I had to make a recommendation to the Administrator on what to do. A couple of senior assignments required that because the Center director and the Headquarters staff couldn't agree. Or things like that. I was the reviewer on all grievances or complaints or anything that made it to the Headquarters level. People were bringing lawyers in. Usually we were trying to fire somebody. The documentation was always lacking on our side. We finally got better at it. That's why I just finally accepted that it takes two years to fire somebody in the civil service. We did a survey by the way. Out of everybody in NASA only 26 people were marked below outstanding on their performance plans. So, you mark somebody outstanding, now you want to fire them? Well, you've got to now move them down to highly successful, then to successful, and then to unsuccessful. You can't move them more than one increment at a time or you'll get a grievance on the way down.

Those are the realities that supervisors came up with. Although I remember somebody came to see me and I said, "Why don't you fire that person?"

They said, “I haven’t got time. It’s too arduous a process for me to do it.”

So I got some realities that way too in terms of it really is hard, but you can do it and we did do it. We had some managers and supervisors who really did an excellent job—and I would go with that manager. We’d meet with the unions. We’d meet with the lawyers. I was the arbitrator on the thing. We had our act together by the time we were doing that stuff.

WRIGHT: You did wear many hats. When I was reading about the strategic plan and the handbook I found it interesting that you wanted to make sure that not just managers understood the strategy that was being implemented for NASA’s success. You wanted every employee to understand that as well. Even to the level where every employee received a copy of the handbook. I believe you went to visit every Center and talked with them to try to emphasize how important this was. Can you share why?

DAILEY: We did a rollout in every Center. It had a varying level of success I think. You could tell from the audience. We tailored the pitch to the Center. Some of them were enthusiastic to learn about it and asked a lot of questions. Others just sat there and at the end of it thank you very much, the lights came on, and they all got up and walked out. I always stayed. When I went I usually stayed overnight and tried to go to dinner with people, go to the bar and have a beer or something, try to get a little bit acquainted. After a while I knew everybody pretty well and really formed some lasting friendships that I really value.

I think that it was a case of winning the workforce over that where we’re going is going to help NASA get into the future. I think that it’s a very very smart workforce. Very aware. They know if you’re giving them some line of baloney. That’s why I was always very careful to

make sure if I didn't know the answer I'd tell them, "I don't know. I don't know what we're going to do with it, or I don't know what we're doing even. But I'll find out and I'll let you know when I get back." We did that. We would do a follow-up on any questions that we couldn't answer right on the spot.

It was amazing how many misconceptions and rumors [there were]. If somebody asked me a question, I said, "I've never even thought of that. I know I didn't say it because it's never entered my mind, that issue."

So they said, "Oh well everybody said you said it."

I said, "Who said? Where's the person who heard me say it? I'd like to meet them."

Sometimes we'd get into that kind of a discussion. People were afraid they were going to lose their jobs, so there was hostility. You could tell. They really had a chip when they would ask the question. Then when they'd ask the question and a lot of people would applaud the question, you knew you were in a little bit of trouble. So I said okay, here's what we're doing; here's what we're trying to do. If it's not the right thing we need to know that. I think that was the approach that we took. But I did all of them personally. I didn't have to hear from anybody on what the reaction was or where we were moving.

WRIGHT: You believe by the time that you left that people accepted the fact of "doing things for the agency" more than "doing things just for their Center"?

DAILEY: I think we made progress. I don't think there was a total conversion. In the Marine Corps the first thing that you are taught in your basic training is that the Marine Corps comes first. It's Corps before self. That really would be my goal anywhere. If everyone in an

organization works to make the organization better and puts that priority ahead of their own requirements or desires, it's unbelievable what you can accomplish. I think we got a long way towards it. I think the thing about when you take the employee survey every year, it was at least 98 percent of the people in NASA said I'm proud that I'm at NASA, and 98 percent say I would recommend it to a friend. Then do you think you make enough money? No. But that's just the standard.

We get the same thing here at the Smithsonian. I'm proud I work here. I'd recommend it. I don't make enough money. Then it gets down into, do you think your manager is doing a good job, do you think that promotions are based on merit? No. Do you think that proper disciplinary action is taken against nonperformers? No. I can almost take the NASA and the Smithsonian surveys and I could predict the percentages on them, because they're very similar groups. Very proud of what they do and where they do it. They would like to be paid more for doing it. They don't think that promotions are based on merit as much as they are on longevity, which in the civil service, it's automatic. Step increases. Then they don't think that we take proper action against nonperformers, so that's been one of the education things. Well, what did that nonperformer get on the last performance rating, highly successful or outstanding? Then there's a disconnect here. You can't have it both ways.

It's a continuous education requirement I think. That was the thing. We were always talking about something that we thought was pertinent to the agency. I could almost hear groans sometimes when I'd tell them what I was going to tell them. Here's what this is going to be about. Oh God not again type thing. When we updated that strategic plan we'd already oriented everybody toward what it is. Okay, if you don't like this, tell us what you're thinking. We got a lot of input. We really did. Very thoughtful stuff.

We tried to incorporate. It was interesting because we wanted to have a concise mission statement that represented the agency. Like GE where its “progress is our most important product.” We were looking for something like that. We put a group together to come up with our slogan. Not senior people, these were midlevel. They came up with a paragraph. It was great but it was too long, so the senior group said we’re going to take this and we’re going to cut it. We worked for about four hours in a group session and came out with the same paragraph that they had. We couldn’t get it down. At NASM ours is “commemorate, educate and inspire.” That’s what I was looking for, but we couldn’t get it down because NASA is so diverse. Everybody wants to be recognized in that mission statement specifically. That’s one of the other things.

When we did the strategic plan there and also here, people were afraid if it didn’t specifically identify their job that they might be cut or the budget might not get there. We finally have gotten people to accept. It worked in both places. They said okay, I see how it work now, and I’m willing to let it be a higher level statement in regard to my duties or to my responsibilities.

The thing was we could say okay you had a chance. If you don’t like this plan you should have said something. You could have done it. It was a direct thing. You didn’t have to go through your supervisor. You could just put a direct input. We had representatives in each Center who were collectors. It worked out. I think it kept getting better and better. Then we finally started even getting comments from OMB, which really helped. It meant they were reading it and said it would be stronger if you emphasized this, because they knew what the guidance was that they were getting, and helped us.

WRIGHT: Part of that plan was you introduced strategic enterprises. Can you share with us the background and why that strategy was put in place for those separate enterprises?

DAILEY: I think it was, again, we were trying to show our relevance to the country. These enterprises, they were almost like focus groups or missions for the agency. We're going to do this for America. When we picked the Centers of excellence, we said we need to pick the things that we can do better than anybody else. If we can't do it better than they can, we shouldn't do it. That was the hard part, that if we couldn't do it better than everybody else, letting go of that. Really refining, putting our money on the area where we could provide the most value to the country. The enterprise, this may not be fair, but I think really that was more of a management administrative arrangement than it was operational or in terms of the performance, because we'd already identified. We had enterprise, that might have activities in different Centers. We didn't do that consolidation I was talking about. We didn't have enough money to move people from Ames to Langley and that sort of thing.

But then the enterprise was in charge of each pocket within the Center. I think it worked pretty well. They had their own budgets. They controlled the budget. Of course that's the way you get everybody's attention is by holding the purse strings. Then we used that if you want money, you're going to play our game. That was the way it went. You may have something that's really fun for you to do, but if it's not supporting our overall goals then we're not going to support it financially. What they would do is go out and get a grant to keep doing it.

WRIGHT: You mentioned briefly about working on the President's Management Council. Were you also the go-to person for the interaction with other federal agencies like the DoD

[Department of Defense] and the FAA? Could you share with us those dealings with working with other entities?

DAILEY: Yes, I was the co-chair of various committees with DoD and FAA. The DoD part was easy. As a matter of fact the first action I took, first thing I ever signed in NASA when I got there was buying Moffett Field from the Navy. Of course now everybody's mad at me for doing it because it cost a lot of money for that, because everybody moved out.

In fact, I guess it was Secretary [John M.] Deutch and I chaired the DoD group. Then with FAA they had a series of deputy administrators that I dealt with. Marion [C.] Blakey and Jane Harman were the two administrators that I dealt with. Commerce was another one, and Transportation. They were not standing groups. They would be, "we need to talk about this." I was on NPOESS [National Polar-orbiting Operational Environmental Satellite System], that was the weather satellite that was being done by multiple agencies and international, and it failed. I kept asking, because I was getting technical advice: "NASA thinks this is failing. We're not going to do this." They had so much momentum, they wouldn't quit. When I left NASA it was still going. I just read a year ago or so that they finally canceled it because they couldn't make it work. It's like anything where you have too much input and you're trying to meet everybody's requirements. You've got to figure out what has to be done and then cut it down to that.

I saw that in DoD all the time where each service would have its own individual requirements—like the Ospreys. Perfect example. Tilt-rotor. They all said we have to have this, this is what it has to do. As soon as the program was started, they all dropped out except for the Marine Corps, and the Air Force with a few airplanes. Well, the requirements had already been

driven; the cost of the program had already been increased by all these requirements that weren't necessary for the airplane that actually was being flown.

We did the same thing in government almost in every—particularly satellites. They got smarter in terms of how to do that. The requirements creep I guess is really what you'd call it. Dan had a program called “better, faster, cheaper.” It was faster and it was cheaper but it was not better. It removed redundancy. It's an interesting comparison for what's going on now in the commercial world with some of these individuals like Elon Musk with his program [SpaceX].

He's not driven by all the requirements that govern NASA in terms of safety and requirements for programs, so he's able to go ahead and try it even though he doesn't have triple redundancy. Of course his is not man-rated either, but it's cheap. Much cheaper, because you don't have to pay all this other. When you think about some of the things that happen, we had some pretty serious—most of them failed. We canceled one before it got a chance to fail. It was because the cost of a program is mainly the people that you have to pay to be on it, whether they're contractors or civil servants. When you don't have that workforce that's checking—I don't remember now the name of the spacecraft where JPL [Jet Propulsion Laboratory, Pasadena, California] used metric instead of SAE [Standards]. A basic error. The whole thing failed. It was because that was our better, faster, cheaper program. It was because it didn't have the review groups in there that would say, “Hey wait a minute.” I don't know whether anybody would have caught that but it's hard to do it cheaper and better at the same time. I used to say two out of three is not bad.

WRIGHT: That's true. You were, as you mentioned, handling so much of the restructuring efforts. Then while all that was going on for this overall reorganization effort, the [human] spaceflight direction was changing, as well as with the new Space Station involving the Russians. How much were you involved in that and were able to provide input into those negotiations and those agreements?

DAILEY: I told the Russians in the first meeting. I said, "I've spent my entire adult life planning to kill you." They looked at me—these were all Russian military guys too—they looked at me like, "yeah." I said, "But now we're moving into a partnership here and we're ready to do this." But Dan took that one himself. I never went to Russia on a trip, and I only was peripherally involved with them when they were here. It was being done by the international guys and Dan and State Department. He excluded me from that. I don't know whether it was because he was afraid I might not be as objective as I should be. I don't know what the reason was.

WRIGHT: Maybe he felt he had some other marines involved. I think Mike [Michael] Mott and Jed [Jeremiah W.] Pearson were involved, so maybe he felt he had it covered.

DAILEY: Might be. Will [Wilbur C.] Trafton was in that too. He had a very large role.

WRIGHT: There were a lot of changes and a lot of significant events that happened while you were with NASA. One of them being in 1998 when John [H.] Glenn returned to the astronaut corps. Then of course at the end of that year was the International Space Station with the first

component. Tell us about your involvement in having John Glenn come back to be part of that historic effort [STS-95].

DAILEY: Well, he was one of my heroes. Still is by the way, being a marine fighter pilot. I'd been watching him ever since I joined the Marine Corps, so it was an honor for me to be involved in getting him back in space. People thought that he wanted to do it as a stunt, to be the oldest person. He genuinely thought that there was a value in his participation. He still does, and I think there was, because they have a database on all those astronauts. A medical database. They get physicals every year and they record, so they have really got a profile. He spent eight hours in an MRI [Magnetic Resonance Imaging] getting his body completely mapped before he went so that they knew exactly what they had before. His interest of course was in the aging process and whether it had a greater influence on somebody who was older in terms of bone loss and some of these other things. But he's the real article. Probably better than anyone else who could have done that. I think it provided value to the program. I don't know what the results were. I never saw any because I was gone by the time it came out.

I see him often, and he's still involved in things. I know he goes to Houston occasionally on things that they want to check on. The other thing I thought was that America needs heroes. We don't do very well by them because as soon as we get one the press tears them apart and tells us all the things that are wrong with them. But here's a guy who's bulletproof. You talk about the pure American Midwest hero, he's it. He's pure of thought. His purpose for doing things is not for John Glenn. It's for the country.

We did get a boost from it. It brought that excitement back to the space program that we had in the past. One of the things that I was noticing at that time was when people were

watching the launch on TV, that they wouldn't even stay until the solids had burned out before they were off down doing something else.

That used to really upset me. How incredibly difficult that event was and then to have people go, "oh ho hum we've done that before," and we've lost that excitement. I think he brought that back. Now one of the things that we see here, is when John Glenn comes—he introduced Charlie [Charles F.] Bolden, who gave the Glenn Lecture. But when John Glenn shows up we have to go to overflow. We fill our theater. We have to set up chairs in Milestones of Flight and into the planetarium. We get 1,000 people in there to see him any night of the week, whereas for anybody else it may be anywhere from 150 to maybe 200 on a weeknight or something for a lecture. He is the great American hero. I think NASA benefited from the flight.

WRIGHT: Was that your idea to bring him back in?

DAILEY: I might have been involved in that, but it was his idea really. He came up with it, but I think I was maybe one of the first to accept it. Mike Mott also. Mike really took a very active role, because as the chief of staff there he was in the position to work with human spaceflight and some of the guys. I don't know of any resistance that there was to him doing it. Except probably from whoever it was that got bumped from the flight.

WRIGHT: Yes, they may still be talking about that. But that's okay, if you're going to get bumped you might as well get bumped by John Glenn.

DAILEY: Yes, not like somebody beat you out. It was somebody who just based on their experience and their reputation and the need for the country to have them on, they'd be on.

WRIGHT: One of the other events that I remember that happened while you were in service with NASA was the reserivicing of the Hubble [Space] Telescope and the rescue of that whole mission for science. Can you share with us what that was for you to know that NASA had been successful in getting that whole mission back up on where it needed to go?

DAILEY: Well, tremendous pride. Let me go back one step. There was talk about a servicing mission but no money was ever put into anybody's budget for that. Then when we did it we said okay that's it. How many were there? Five. Hubble has provided us with knowledge that surpassed anything else that's ever been done. So, the fact that it's still chugging is an important thing.

We were taking the hits from the press about how we put up a telescope that's optically flawed. Then when you look at the tolerances on that corrective lens as we referred, it's unbelievable that they could do that. Then take that thing into space and mount it and have it work within those tolerances. See, people don't understand how hard that is or how incredible the accomplishment is when it's done.

I think everybody got a boost. I think the country got a boost out of that. They should have, if they were paying attention. I was fortunate enough to have really firsthand knowledge of exactly how they were doing it and what they were going to do. They predicted it, we can do it, and by God they did it. That gets back to, NASA can do it if they want to. So, that was a

wonderful—it almost was like a setup. We send something up. Say oh, we got to fix this, and then did it.

Then the servicing missions were always I think exciting for the country to see what was going on. See Kathy [Kathryn C.] Thornton with that refrigerator on the end of her hand there, moving around. Some of the things that they did were pretty spectacular, the things we learned about no-torque wrenches and all the other things. The assembly of the Space Station, all that stuff has given us technology that we're applying to medicine and garages. The whole spectrum. So yeah it was a great moment I think.

WRIGHT: Are there some other moments that you had a hand in its accomplishment while you were there at NASA? Maybe something that you feel like you were able to leave that helped NASA accomplish its mission?

DAILEY: Well, my association there on the Program Management Council. I've seen all those systems launched now and successfully. I had a running gun battle with SOFIA [Stratospheric Observatory for Infrared Astronomy]. They came in with a bunch of highfalutin numbers. I was the only one. I guess I was not a technical person in their mind, but I knew a lot about flying. I knew a lot about airplanes and how difficult it is to modify them and how many sorties you might get.

I said, "I'm not buying any of this." Nobody else in the room had a comment.

They all said, "Okay, let's go."

I said, "You're not going to get 160 sorties a year for sure. I think you're underestimating the difficulty of this modification of the airframe."

“No we haven’t.” They said, “We can get this airplane for \$8 million.” It was a 747 Special Purpose. That was the airplane that was built. It had very long range. But you couldn’t carry enough people to pay for the gas. So they were not a highly sought airliner. As soon as word got out that we wanted one the price went to \$25 million. The airplane price tripled. It only could be based at Ames. Remember that was the place we were doing all the flight operation because all the astronomers and astrophysicists were based there. Palo Alto [California]. They didn’t want to move. They didn’t want to go down to Dryden, which is where we should have done it, because the Air Force was going to give us the C-17 hangar that they had just vacated. It would have been free.

I left there and that was still working. Now it’s flying out of Dryden, not Ames, so I take a little satisfaction in having been able—if they go back and ever check the minutes they’ll find out in that first meeting I think I mentioned everything that has finally come true. But, we also looked at canceling that program. I had a scientist come in and tell me, “I haven’t spent my entire life working on this to have it canceled. You tell me what it is that you have to have to further this and I’ll come back and give it to you.” By gosh they did it. So that’s what I mean. It’s that spirit of can do, mission accomplishment. It was very gratifying to me to see the way people reacted to challenges like that.

WRIGHT: You brought in a wealth of knowledge about how government works and strategic operations, and used those lessons and applied them to do the things you needed at NASA. What did you learn from NASA that you’re able to apply to your job now?

DAILEY: I think NASA softened me on my approach to making decisions. In the Marine Corps I knew what we should be doing and how to do it. I'd been trained at every level so I was ready. I had tremendous confidence. I could go in there and say, "Okay, this is the alternative we're going to do." I didn't need to get a lot of help.

In fact what I say is when I was in the Marine Corps if I put out a directive, I was relatively certain that something was going to happen. When I got to NASA, when I put out a directive, that started the discussion. When I got to the Smithsonian, when I put out a directive, it starts the resistance. I talked to some academics out there in California a month ago. They said when we put out a directive it's ignored. This is one of the places where Alison McNally really had an influence on me. We did the Myers-Briggs [Type Indicator]. We had everybody do it. That was my idea by the way because we did it in the military. I think there's a real value to understanding who you are and who the people are you're working with on how you're going to make decisions, how they're thinking.

I'm an ESTJ and she was an ENFP. We're diagonally opposite in terms of the way we look at things. I'll give you a perfect example: they came in and said we need to have a policy on drug testing. I said that it ought to be 100 percent. Alison said, "Take it easy, just a second. Maybe not."

I said, "What do you mean, why not, are you on drugs?"

She said, "No, of course not. But you're going to find that first of all it wouldn't be effective if we did it that way. There'd be tremendous resistance."

I said, "Okay, let's start talking about it."

We got groups together and started talking about these various things. I was still hard over that it had to be 100 percent. By the time that policy was published, Dan Goldin and I were

the only two people at Headquarters who had to be drug-tested. Everybody associated with launch of a mission had to be, but it's almost like the National Football League. It was random and all this kind of stuff. So, the fact that I worked with that I think was a real indication that I had come a long way from the way I entered the agency. In fact my friends were saying you really got soft, you're not nearly as firm and directive and commanding as you used to be. I really believed that we were making better decisions.

I would say 90 percent of the time when I go into a meeting I know what the outcome is going to be. I know what the right answer should be, but it takes us a lot longer to get to that realization. I like 30-minute meetings. I was at a very high level, so by the time the issue got to me it should be pretty well refined. If they can't explain it in a half an hour or on one page, they probably don't understand the issue well enough to be briefing it. That doesn't work here either by the way. But I tried that. I said, "Okay, let's keep this to half an hour." We were never able to do it. It was just too many people wanting to talk about you have to consider this, have to consider that. I guess what I brought to those discussions was the reality. Okay, here's how much money we have. Here's the schedule we have. Here's the people we have to put on this. We need to scope this so that it can actually be accomplished. Everybody on the first try is we're going for the Moon. They want everything on there, all the bells and whistles and things that can't possibly be done without.

That's what I meant earlier. When I got here I said you're lucky I spent seven years with the scientists over in NASA before I got here, because I'm much more understanding in terms of decision making and the elements that go into it.

We actually did an experiment. I wanted to do it at NASA. We never got around to it because just to get it all done took too much time. I'm a sensing, thinking decision maker. I like

data. I want to see numbers. Then there are intuitive perceptives who are like exhibit designers. We have that sort of people that we deal with in this museum. They think things in a much more broad fashion.

So we took the STs and the NPs and put them in two separate rooms. We said we're going to give you 20 minutes. We want you to define love. Twenty minutes later we went back. The STs had butcher paper with a list of all kinds of things on it. We went into the other room and they were asking what kind of love are we talking about. They had not done anything. My point was you need at least one ST on a committee to get to a conclusion, and it's better if it's the chair because they'll drive. The others will discuss it forever without ever coming to it. So there's balance. I think people finally started to realize that. When we put a team together we wanted the people who want to explore this thing to exhaustion and others who want to get it done. We still joke about it. What are you anyway, are you ST now, that sort of thing. It worked. People were going, "by gosh!"

We even thought about bringing the spouses in, but then we couldn't fund it on the government. It's not bad for even marriage counseling type things for people to understand that they're different. We had quite a few training sessions like that. We'd bring people in. We brought the people from Sony in who did the PlayStation. How they thought about that, how they got to it, what kind of arrangements they had. We brought Dow Chemical in. They have the best safety record of any corporation in the world. They led us through that. So that was beyond this Candidate Development Program. This was for total staff type thing. We'd have one hour of educational presentation at all these management meetings for people to—it was interesting because some people on our staff had experience in some of these areas and they'd really get into it. They could try some stuff. I think the speakers always left there knowing that

they'd been talking to a pretty knowledgeable group, very capable group. So they were fun in a lot of ways.

I guess I am a softie now in terms of the way we get to the decision. The other thing is that at the end of a meeting I will say okay, this is what we decided. We put it in the minutes and we put the minutes out. That was another thing, getting the word out to everybody. If you depend on the supervisors to go back and tell their employees what happened you may get about nine variations. They may not even do it at all. When I got here people would say oh I didn't know that. Okay. So we kept improving the way we got information out. I don't accept that now. If you don't know it, it's your fault. You're not trying hard enough to know what's going on around here. By the way we have an employees' handbook. We have some things that worked before.

But at the end of the meeting okay, this is what we decided. It comes out in the minutes. If there's ever a change we put out a modification. So there's an audit trail of why we did what we did and what we're going to do. I have a town hall meeting every quarter here. Dan tried that at NASA but you couldn't get the whole workforce in one place. It's hard. Here my first two or three it was a knock-down drag-out. People were hostile. They were asking why are you doing this. Now we don't even get any questions because everybody knows. Before I get there they all know because we've already published it in one way or another. The communications up and down is the most important.

It's the biggest deficiency in every organization, getting word to where people understand. That means going up too. It's interesting how the translation changes. By the time the boss hears it, it's going to be influenced by several layers of interpretation. I don't like the word transparency but that's what it is. If everybody knows what's going on and can know, for

one thing it relieves a lot of angst because they do. Whether it's good or bad, they know what it is. It's not a rumor.

We had an employee retire about two weeks ago. She gave me a book. It's Dogbert's [Top Secret Management Handbook]. There's one little thing in there. He says you can use rumors to your benefit, because rumors cause the workforce to be uneasy. That's almost like being alert, except it's better because they're unsure of what you're going to do. You can reinforce that by entering bits of information that nobody can confirm or deny. So keep them on edge.

I said this is not all bad, these rumors that go around, because people start rumors just because they don't have anything else to talk about, or that they think that this might happen. It can be very damaging in an organization. We had it in NASA in spades. It was really rumors. That's what I mean when I answered the question, "I've never even thought of that, much less said it."

It's rampant here too. Any time anything is going to happen they have a rumor going about it. So I said all you have to do is ask me, and I'll tell you exactly what it is. We haven't got any secrets here. So yes, I think I learned a lot there.

One of the things I guess that made it easy at NASA for me to be more liberal in my decision making process was the quality of the input that we got from the people. Really great people that think through an issue and have very thoughtful input. I guess I saw the value of opening up, and that's carried over here. So, I think I got more out of NASA than I gave. I genuinely benefited from my time there. I used to look forward to going to work, even though we were doing hard things and unpleasant things. We were doing something. It was important because of the importance of the agency.

WRIGHT: You've been here since 2000. I understand it's the busiest museum in the Smithsonian complex.

DAILEY: In the world I think.

WRIGHT: In the world. Although you haven't been officially connected with NASA, there have been a number of events during those last years that keep bringing the two agencies together with the most recent one being the arrival of [Space Shuttle] *Discovery* as part of your collection. Share with us what that was like to bring her here to her new home. Then if you could share with us your thoughts on how valuable the partnership is between the Smithsonian and NASA and why it's important that the two continue to work together.

DAILEY: The relationship is absolutely critical to both, because we're the showplace for NASA. We take things that NASA has done and put them on display. We put the words with them to educate the public as to what this was and why it was significant and how it was done and who the people were that were associated with it. We commemorate by getting the article from NASA. We educate by doing the scholarly research on it. Then hopefully we inspire people—this is what America did and we can do it again. That part of the relationship is really critical.

The other thing is NASA funds a significant part of our education program, which is our ability to get not only students and visitors but the teachers. NASA is the lead. NASA has actually not only the funding but has a very strong education outreach program. We're very privileged to be a part of that. That keeps us very close together because we have astronauts in

here speaking on a regular basis. We have engineers. Even Administrators have come over and talked about some of the things that have happened in the history of NASA.

Our job is to educate the public—we say American [public] but it's greater than that—on NASA and what it's done, and of course NACA [National Advisory Committee for Aeronautics] before NASA. So it goes back to the beginning of flight in terms of both air and space. It's a great partnership, and I have a lot of friends in NASA. It's great to see them and to have them come over. Of course we're all getting a little long in the tooth now. But to have Charlie Bolden [come over]—I knew him in the Marine Corps and then when he was an astronaut and now as Administrator. Sean O'Keefe was the Secretary of the Navy when I was the Assistant Commandant. Dan Goldin is the only Administrator I haven't known, I mean before. We really value our relationship. One of the things with NASA sponsorship, we develop an exhibit called Moving Beyond Earth. It's a gallery that NASA wanted to have.

NASA wanted to have a forum where they could have mission debriefs or any kind of information exchange from a public affairs standpoint and do it in public if they wanted to have a press conference. So we got this gallery built with a stage inside. I don't know whether you've seen it.

WRIGHT: No.

DAILEY: There's a control room that would rival any TV station I think. NASA put that in and they run it. So we have NASA TV from our place any time of day or night, or we can project it. People saw *Discovery* land in our museum looking at this full—it was bigger than this wall. So a lot of things like that that were going on. Education, webcams, things like that all can be

facilitated by that room. That was NASA-funded, and from a technical standpoint it's NASA-operated, so it gives us a great facility. We use it every day all day. Then if they ever need it, it works out nicely to fit them in there.

WRIGHT: Well, we have a few more minutes before our time is up, so if you would share with us what it was like to have all those friends and so many more people here at the arrival of *Discovery*.

DAILEY: It was an incredible experience. It was probably the most complex planning experience that our staff has ever had. I'm very proud of it because they did a great job with it, but it was a NASA show. We didn't control when it was going to get here. It was NASA, FAA and TSA [Transportation Security Administration] because of how people could be managed. We have a 2,000-car parking lot. We immediately recognized that's a limiting factor. We're not going to be able to get everybody in.

So we started putting the word out that you don't have to be at our place to see this when it arrives. Anywhere on Route 28. NASA would not tell us whether they were going to fly it over the District. We knew we wanted to, but whether they'd even get clearance and it would depend on the weather. The mission was to get the Shuttle here and to deliver. Anything else that could be done in addition to that would be gravy. We put out a lot of special invitations. It was interesting because NASA got I think one fifth of the seats. The airport management got one fifth of the seats. We got one fifth. Let's see, FAA. Then the press was the other fifth, because it was based on space.

We lucked out with the weather, because it rained like the devil on Sunday night. The Shuttle arrives on Monday in beautiful weather. It flew by here, and it made several passes. The passes that it made over the Mall were just amazing, because nobody was anticipating that. Even though the T-38s flew in and did their reconnaissance a couple days before.

We knew it was coming. We were getting calls. “Okay, it’s down here and here it comes.” They circled for three trips around here before they landed. We had people up in our observation area. We had people on the roof of the theater. The parking lot was just completely filled. That was the arrival day. Then it started to rain again, so they demated in the rain at night to have it ready for Wednesday, when it cleared up again. We pulled *Enterprise* out. Between the arrival and this ceremony, that’s where we got the 4.844 billion experiences on the Web.

There were 31 former *Discovery* commanders and we had 21 or 22 of them here. Then we had other Shuttle commanders, and we had them all up on the stage. I actually got choked up. I was reading my script, and everything was going fine, then I started thinking this is unbelievable. We have got more NASA history sitting on this stage probably than any other single event, even when the Astronaut Hall of Fame meets. It was just an amazing experience for people. Of course we were controlled. The state police cut us off. They had a policeman in the tower, and when he saw that all the parking places were full he radioed out and they shut them off.

NASA was televising it, so it was on NASA TV. We were showing it downtown. Then the aftermath of the press and the coverage and the enthusiasm. The thing that got me was the spontaneous excitement that used to be associated with space where people just forgot what they were doing and just started looking up. It was no more of this oh ho hum I’ve seen that before. This was holy smokes. People stopping cars and jumping out of them. Not having an accident

because everybody else was jumping out of theirs too. We have a docent here whose wife is a schoolteacher. Their school would not let the kids out to watch it, so she set off the fire alarm. It got them all out in the parking lot. She wanted her daughter, who goes to that school, to see this. This was historic. It was one of those moments that will never be relived. *Enterprise* and *Discovery* will never be nose to nose again on a taxiway.

The ceremony ended at 12:30 and we left them out there till 6:00 so everybody could get their photo op. Then it was time to pull *Discovery* into the barn. I don't know whether you've noticed the overlook when you come in the museum. That's our premier spot. You look over the SR-71 right back into the Shuttle hangar. There's *Discovery* back there. Because so many photographers take that picture, it's very important that everything be in line. So, we're using laser alignment to get it very accurate.

But this is 6:30 in the evening now. People have been standing out there since about 7:15 [AM] or so. They started to pull it in. They said wait, now it's not properly aligned, so they pushed it back out. The crowd started cheering because it was like *Discovery* was resisting being put away in the barn. But again nobody was leading the cheers. It was a spontaneity that just made it. It was a wonderful experience for everybody.

WRIGHT: What an honor for you since you had had involvement with NASA to be part of its homecoming, to be here, and to have all your friends there. It was a neat day.

DAILEY: It was a reunion. A great reunion for NASA too. I always felt myself as a new guy at NASA, because I got there late, and then also didn't stay that long. It was probably the things we discussed; the travels around to the Centers, and the friendships that I made, and the people

that I got to know and dealt with on a regular basis. It's like we haven't been apart. It's really great to see you type thing. Really my time at NASA was just—it's difficult for me to describe how wonderful it was in terms of just the enjoyment, the joy of being there. Also the benefits in terms of knowledge I gained. I'm a much better person than I was before I got there, just because of the experiences that I had with the people. It was the people. Not what we were doing as much as the individuals who were doing it. It's hard to describe actually.

WRIGHT: Well, I'm glad you had that experience. I know we only have just a couple minutes. I was going to ask Jennifer. Did you have any questions that you wanted to ask the general?

ROSS-NAZZAL: I was curious. You mentioned that JSC didn't like to play by the rules so much. They weren't really pleased with the changes that were going on. Were there other Centers that were much more willing to adapt to things? Or maybe their Center leadership that you found that were willing to play ball with the changes that were coming on down?

DAILEY: Leadership. I don't want to pick favorites. Well, I'll tell you though Kennedy was much more receptive to change. We referred to Johnson as the evil empire. So much of the budget went there. When you're controlling human spaceflight, you're pulling the strings.

Now it doesn't mean that the people were not good or easy to get along with. It was just that whatever George decided was going to happen, that's what happened, because Dan Goldin depended on George very much for advice. I think that was probably it.

We had a really good relationship with Langley also. We brought two Center directors from Langley up to work at Headquarters. I think that probably facilitated that quite a bit. But I wouldn't want to grade them, because it all depends on the issue.

In terms of just in general, the power of Johnson is so overwhelming to everybody. I don't mean that they didn't do what we eventually decided we were going to do, but they wouldn't have done it if they didn't want to, I'll put it that way. We didn't have the ability to make them do it. I guess that's probably a way to put it. We could not have made them do it, because we passed probably 90 percent of the budget right straight to Johnson every year. It's \$17 billion or whatever it was. It was a lot.

ROSS-NAZZAL: When you were looking at downsizing things, were you looking at creating federally funded research centers and turning some of the NASA Centers into those?

DAILEY: Yes. Well, that's what the idea of the Center of excellence was, because really that was the focus. We wanted to continue to do the fundamental research in a very specialized way, and with that Center being responsible for that discipline, whatever it might be. Then again with the focus on doing the things that we could do better than anybody else. That was the hard part, because no one agreed that what they were doing wasn't better than everybody, that we weren't the Center of excellence for the country in that.

As a program would end then we just wouldn't start another one in that center, if we were trying to get away from it. Again the limiter was the funding. We couldn't just have everybody get up and move to a new location to make it. That would have been the most efficient way of doing it, so we did it through attrition. I actually don't know how hard they're pressing that now

or not, but there's a tendency for the Centers to diversify because they get an opportunity. They'll get funding or whatever it is. They've got the workforce available and that sort of thing.

I hope nothing that I've said would be considered derogatory, because I don't mean to criticize. I'm in awe of NASA and what it can do as an agency and as a team. I wouldn't be the only one to ever refer to Johnson as the evil empire.

ROSS-NAZZAL: I think I hadn't heard that before, but we're from Johnson too.

DAILEY: You haven't heard that before?

ROSS-NAZZAL: No, I've never heard that, no.

DAILEY: Really.

ROSS-NAZZAL: I just have one other question. You've talked a lot about civil service and things that were being changed on that side, but would you talk a little bit about privatization and efforts towards moving things into contractor positions?

DAILEY: I find that one to be very interesting because 95 percent of the NASA budget goes to contractors. We're already privatized, except the difference is that NASA controls the contracts. That's what the Centers and Headquarters were doing. They were program management. The contractors had to report to them. The contractors had all the skills and everything to build these systems, but it was under the management of NASA. What I would see in privatization is

perhaps some of that oversight would go away. That was a serious concern on the part of the people in NASA because of safety, shortcuts and things like that.

If you look at the accident investigations, it's because somebody decided not to do something that had normally been done. I'll give you an example. If we put a federal inspector on a program, then the contractor is going to put an inspector on our inspector. So our inspector is not going to go anywhere that their guy doesn't go because they want to know what the problems are so they can be working on them immediately.

That just doubled the price. It's those layers. Now if we gave it to them like you would with a building on a design build, "Okay, you design this and build it, and we'll buy it when you finish it." That I think will be similar to what this privatization part will be. If we contract with Elon Musk, for example, to provide supplies to the Space Station, we'll give him the money, and he'll do it. But he's getting a heck of a lot of help from NASA and Boeing and others. That's what NASA is all about, to provide assistance and to keep us at the top technically of what we're doing.

I can think of a perfect example at Langley. They had these engineering days they would call them. They would bring in anybody who had any kind of a business or built something and wanted engineering advice. They would go to Langley for this day, maybe more than a day. A guy from Florida came in, and he built wall heaters, like they use in Florida, and this was a gas heater. He couldn't get it to work. He couldn't build a valve that would work sufficiently under the temperatures and that sort of thing.

They were all sitting there. One of the people in the room, one of the NASA engineers, said wait a minute. He got up and went out. He came back with a part. In fact the person had brought this heater with him. They installed [the part] and it worked perfectly. That piece cost

11 cents. It had been designed for another NASA program, but the engineer recognized. He said I built that. I know it'll work. Think of what it would cost a business to hire that level of engineering knowledge and skill to come in and advise them on products.

They do it every day with things that are just so beneficial particularly to small business. Privatization, I think it's a play on words, because we're pretty much privatized and always have been. We'll see whether it ends up cheaper in the long run.

WRIGHT: The only other question I had is I hear you had a really tough job though. You used to umpire for the softball games with the astronauts.

DAILEY: Yes. I used to report the results at the staff meeting. The reason I was able to do that is because the Headquarters squad always got eliminated on the first round. In fact Alison organized that too. Any time I talk about NASA I would have to talk about Alison McNally, because she was one of the most—as far as my performance—the most important person there. She was a sparkplug. Actually a knowledge bank, and just very capable. She was the one that put that softball league together.

But we made everybody come up with a team. The idea was we wanted to get people out in an informal environment. We would play softball and maybe have a hot dog and beer or something after. I think it had the desired effect. The General Counsel sent me a letter requesting they be allowed to drop out of the softball league, because the only lost day injuries they'd had were in softball.

Of course the evil empire. Code M was always the—normally would be between them and the building maintenance folks. They would bring in these astronauts. Temporary duty for

the finals, so we got all these guys hitting the ball out of the park there. They were Code M employees for the day anyway.

I don't think Code M ever lost, I'm not sure. I know Will Trafton had been the batting champion at the Naval Academy when he was there. He was knocking the ball, bouncing it off buildings around the area. We tried things like that. We tried going places. Getting a group, go to the baseball game, something like that. When you're based in Washington, DC it's very hard, because you come in early, you leave late. The traffic is bad, and you have to get home for dinner and things. It's hard to get something that people can get a chance to get together and really know each other. So, yeah, we considered other sports but stuck to softball.

WRIGHT: Well, thank you for your time today. Is there anything else that you want to add?

DAILEY: No. I appreciate this opportunity. As you can tell, I'm really high on NASA. I think that the stories that you're getting, put together, would give people a good feel for what the country is getting for its investment in NASA. I think it's wonderful.

WRIGHT: Well, thank you. Thanks again.

[End of interview]