

# NASA AT 50 ORAL HISTORY PROJECT

## ORAL HISTORY TRANSCRIPT

WILLIAM W. PARSONS  
INTERVIEWED BY REBECCA WRIGHT  
CAPE CANAVERAL, FLORIDA – 1 JUNE 2007

WRIGHT: Today is June 1<sup>st</sup>, 2007. We are at the [NASA] Kennedy Space Center in Florida to speak with Center Director Bill Parsons for the NASA at 50 Oral History Project. The interviewer is Rebecca Wright, assisted by Jennifer Ross-Nazzal. In preparation for the space agency's fiftieth anniversary, the NASA Headquarters History Office commissioned this oral history project to gather thoughts, experiences, and reflections from NASA's top managers. The information recorded today will be transcribed and sent to the History Archives in Washington, D.C., where it can be accessed for future projects.

Are there any questions that I can answer before we begin?

PARSONS: No.

WRIGHT: Okay. Well, I thank you again for giving us some time, and I would like to begin by asking you to briefly describe your background and tell us how you got to the position that you're in?

PARSONS: Sure. I went to college on a Navy (Marine Option) ROTC [Reserve Officer Training Corps] scholarship, and majored in engineering. After four years, I left the Marine Corps and went into private industry. I was in manufacturing and maintenance type work. I ended up at a sawmill in my hometown in Magnolia, Mississippi. I was hired on as a third-shift maintenance

supervisor at the Sawmill in my hometown. I thought things were just fantastic. I was in my hometown and had a pretty good job in a fairly depressed area.

My first wife's parents lived in Cocoa Beach [Florida], and Thanksgiving we decided to come down here for the week and have a vacation. We came down and there was a launch planned during that time. My father-in-law, who was an Executive Vice President, of Pan Am [Pan American World Services], said he had some passes out to the causeway and asked if we would like to go watch the Shuttle launch.

To be quite honest, I wasn't real interested at the time. I thought I'd watch it from the beach. I really didn't want to fight the crowds. I'd done the [Walt] Disney [World, Orlando, Florida] thing and all that, and was saying, "Just leave me to relax," because I needed some time to be away from all that stuff.

They kept trying to talk me into it. Finally I agreed and went out to the causeway. It was the week of Thanksgiving in 1985. It was a dusk launch. It wasn't quite dark, but the sun was going down. I wish I could remember the STS number; it was like STS-61[B] or something. In fact, I know Brewster [H.] Shaw [Jr.] was on the mission, and Bryan [D.] O'Connor was on the mission. Now that I look back, these guys are people I work with day to day, and it is cool to know that they were on the first mission that I saw.

So they were doing the countdown, and I started feeling the excitement of the crowd, and I started getting into it. All of a sudden it began to kind of capture me. The lights are on the Shuttle. It's there on the pad, and you can feel the excitement kind of going through the crowd. Then this thing lit off, and I'll be honest with you, when the sound wave hit me and started vibrating my chest, the next thing I know, I was kind of jumping up and down. I even got tears

in my eyes. It really affected me. I think it affected me because I didn't realize how powerful the Space Shuttle was, and when I saw that, it was an awesome thing.

But the other part was how patriotic it made me feel. Having been a Marine and then going into private industry, I hadn't felt that level of patriotism since I had left the Marine Corps. All of a sudden I'm watching this happen, and I was like, "It's great to be an American. It's great to do what we do and to have this kind of technology and things like that."

So when we returned to the house I started talking to my father-in-law and said, "You know, I think I'd like to come to work out here."

He said, "Well, I'll see what we can do. We'll arrange some interviews."

I sent my resume in, and I didn't get an interview or anything. Then, of course, I'm back at the sawmill, in January of 1986, the [Space Shuttle] *Challenger* [STS 51-L accident] occurred. I had been put on first shift temporarily. I came home early that day for lunch to watch it on TV, because I'd seen the launch before. I watched it, and of course, the tragedy occurred. I thought to myself, "That's kind of the end of that."

But I kept applying for jobs, and finally Pan Am called me back on the Air Force side. In late [19]'86 I went to work for Pan Am as a launch complex supervisor (Complex 40 and 41 – Titan 34D/Titan IV) on the Air Force side. I did that for a couple of years and really enjoyed it.

McDonnell Douglas [Corporation] approached me and said that they had some work in the SPIF (Spacecraft Processing and Integration Facility) which is DoD [Department of Defense] spacecrafts that flew on the Shuttle. They processed the Space Shuttle DoD spacecraft. So I accepted and worked for McDonnell Douglas for a couple of years. Turned out in the Marine Corps I had been a nuclear weapons courier, so I had the top secret clearance. To do the work in

the SPIF you needed all these special clearances and because I had a head start, mine went through really fast.

After a couple of years apparently NASA had lost a number of people that had the clearances. They went to the DoD and said, "Do you have anybody you'd recommend to come over to NASA?" Apparently my name came up in there somewhere, and NASA contacted me and asked me if I'd be interested.

At the time I said, "Not really. I like what I'm doing." But we kept talking, and eventually I came over to NASA in 1990 to work DoD payloads for the Space Shuttle Program. So I was attached to the Space Shuttle Program, payloads area, assigned specifically to the Department of Defense payloads. That started my NASA career.

From that point on it's just been one thing after another, mostly in Shuttle till about 1994. Then the DoD payloads were complete. I went to work in Space Station and eventually was assigned to the Node, which was the first U.S. [United States] piece of hardware. I helped to get it from the manufacturer down to the Kennedy Space Center [Cape Canaveral, Florida, KSC], and we started getting it ready for launch.

At that time I went to [NASA] Stennis [Space Center, Mississippi] to be Chief of Propulsions Tests. Well, actually I was Chief of the Engineering Division, and then I became Chief of Operations for Propulsions Tests. I eventually was assigned to JSC [NASA Johnson Space Center, Houston, Texas] to do Center Operations. Around 2001 George [W. S.] Abbey asked me to be the Deputy Director of the Johnson Space Center. In 2002 he was moved, and at that point in time Roy [S.] Estess, who I had worked for at Stennis, came over to be the Acting Director, and I was his Deputy Director for about six months.

One of the things that we talked about was before the politics really captured me and threw me to the curb, he would send me back to Stennis. Eventually he worked a deal where I went to Stennis; I was Director of Center Operations again. The move back to Stennis put me in line for possibly having an opportunity as the Director of the Stennis Space Center.

In 2002 Sean O'Keefe selected me as the Director of the Stennis Space Center when that position was opened when Roy retired, and I became the Director. I was doing that for almost, I think, eleven months when [Space Shuttle] *Columbia* [STS-107 accident] happened, and for a couple of months we worked the recovery. Everybody just kind of threw their shoulder into working recovery operations.

Ron [Ronald D.] Dittmore had announced internally before *Columbia* occurred that he would be leaving the Agency, which did not change after *Columbia*. So Bill [William F.] Readdy and Sean O'Keefe approached me and asked me to be the Program Manager for Shuttle for Return to Flight. The next two and a half years I worked Return to Flight until we launched STS-114. By that time Mike [Michael D.] Griffin had come on board. Mike and I had a conversation, and I just said, "You know, it's been two and a half years and I think it might be time for a change."

As a side note, my family had decided not to move to Houston. They'd moved back here to Florida. My wife is from here. Her mother lived here and was elderly, and so we moved her back here, and I went to Houston. In addition, my children had environmentally induced asthma while living in Houston previously and with the combination of the two circumstances we had made the decision for my family to live in Florida. So after two and a half years of that, I said, "You know, it's probably time that we start working to get the family together."

He agreed and asked me if I would like to go back to Stennis as the Center Director, since I had left there after only eleven months.

I said, “Absolutely, I would love to do that.”

The announcement was to be made, I think, the first week of September after Labor Day, and of course, that’s the weekend that [Hurricane] Katrina hit. On Monday—Labor Day, I think it was—Rex [D.] Geveden called me up and said, “We’d like for you to be the Agency’s lead in the recovery operations for Michoud [Assembly Facility, New Orleans, Louisiana] and Stennis.”

So I flew up to Washington, D.C. and became involved in the Emergency Operations Center. By Friday I had flown down to [NASA] Marshall [Space Flight Center, Huntsville, Alabama], where I thought we would run the operations, since the Mississippi Gulf Coast was so devastated. After one day at Marshall, I realized I needed to get to Stennis, so I flew down to Stennis on Saturday, and spent the next seven, eight months doing recovery. I lived in an office space on a cot for about three or four weeks and then moved into an RV [recreational vehicle] that we had procured and lived on-site for the next seven or eight months.

During that time I had not discussed with my wife about our plans because I was just so busy doing recovery, but when I finally got around to talking to her about I said, “Hey, when are you planning on moving to Stennis?”

After a great deal of discussion we realized that she just didn’t feel like it was the right thing to move the family into that devastation. She had a lot of friends there, because we had lived there a couple of times, and she just said, “I just don’t think it’s the right thing to do,” and I agreed with her. But I also agreed that we needed to get the family together. We’d been apart going on three years.

So I contacted Rex and Mike and stated what my situation was. That's when Mike said, "Well, how would you like to be the Deputy Director at the Kennedy Space Center?"

I said, "Well, that would probably work out." We had to find the right person to take over Stennis, and we did. Rick [Richard J.] Gilbrech is an old friend and good friend of mine. He was the Deputy Director of [NASA] Langley [Research Center, Hampton, Virginia], and it was an opportunity for him to come to Mississippi, where his wife was from and where he had started. One of his goals was always to be the Director of Stennis, so he accepted that challenge.

Jim [James W.] Kennedy wanted me to come here. Mike talked to Jim, and they all said that it would work out, so I came here, with the thought that Jim would probably be here for two or three years after I got here. For whatever personal reasons, Jim decided after a few months that he was going to retire at the end of the year. At that point in time, not that it was public, but Mike Griffin, asked me if I would be interested in being the Director, and I said, "Absolutely."

So for the next four or five months, of course, nobody else knew it, but Jim and I knew that I was going to be the Director. Finally Jim announced that he was going to retire, which he held back, and he announced it. Then eventually, a few months after that they announced that I was going to be the Director. So in January of this year I took over as the Kennedy Space Center Director.

For me it's 1985, sawmill third shift, see a launch; 2003, in charge of the Shuttle Program; 2007, the Kennedy Space Center Director. It's kind of like one of those, "Wow, how does a kid from Mississippi get to do all that?" I haven't figured that one out yet, but it's pretty cool.

WRIGHT: Maybe you haven't had enough time to figure that out yet.

PARSONS: Right. It's pretty cool, though. I know that.

WRIGHT: It is that. Share with us how NASA has changed since you first came aboard to where you are now.

PARSONS: Well, when I first came on board, Admiral [Richard H.] Truly was the Administrator. I'll just make a point; I'm from Mississippi, and so is Admiral Truly. But I thought it was really neat. Here we had an astronaut in charge. We had a fellow Mississippian in charge of the Agency. He was a Navy test pilot. I thought this guy was great. Of course, [George H. W.] Bush, the first President Bush, had come out with a Vision for Exploration, and somehow they had gotten sideways. I guess Admiral Truly moved on very quickly after that, and Dan [Daniel S.] Goldin took over as the Administrator.

Dan Goldin began making a lot of changes to NASA in the early part of my career, faster, better, cheaper, all these different things. Because I was an intern under Jay [F] Honeycutt I was getting the opportunity to mingle with some of the senior management of NASA, which was very interesting and offered me an opportunity to get a great deal of insight at an early part of my career as to what was going on in NASA.

My impression was that some of the long time NASA executives were saying, "We'll just wait this guy out. Administrators come and go. We'll wait this guy out." But Dan was making extensive changes to NASA in a lot of different areas. Let's talk about some of them. I mean, the faster, better, cheaper with a small spacecraft in the science arena. He was looking for more

small spacecraft. Use your money and make spacecraft that you can launch quickly and that are maybe a little high risk, but cost a lot less, and so on and so forth.

In the Shuttle arena he looked at moving away from some of the contractual strategies we had, acquisition strategies, to making USA [United Space Alliance]. Eventually under Dan Goldin USA was created, and the Space Flight Operations Contract, SFOC, was formed. I participated in that here at the Kennedy Space Center, in those changes that occurred.

Space Station had been a viewgraph program, and all of a sudden hardware was being built. I was thrown out into the manufacturing arena, and going out and helping to get that hardware built, and trying to pull it towards the Kennedy Space Center. Without that hardware getting here, we were never going to launch it.

So, from 1990 when I first came on board, we were doing DoD missions. All of a sudden the DoD missions dried up, and went away; to the changes that Dan Goldin was making in how we contractually approached the Shuttle Program and making it more operational; to then the Space Station Program coming online and actually having hardware with overruns and the politics that came from those overruns. So from 1990 to 2000 I saw a tremendous amount of change in human space flight, in particular, and NASA. Dan Goldin stayed for most of that entire time, so he kept influencing NASA for much longer than what the insiders anticipated.

Then, of course, Sean O'Keefe came on board after Dan left, and Sean was starting to try to give us credibility in the budget arena. We had lost a lot of that credibility with a lot of the overruns that had occurred during Dan Goldin's time. So we were really not being led by a technical individual but being led more by somebody that knew the politics and knew the budget arena and was trying to give us credibility in the political arena and the budget arena.

Of course, in the middle of all that, *Columbia* happened. No matter what Sean's focus was in the beginning, it really turned to Return to Flight, and that meant dealing with the CAIB [*Columbia* Accident Investigation Board]. I would say the entire Agency, even though there were a lot of things going on, the entire Agency focused on Return to Flight.

As the Shuttle Program Manager, I had the resources of the entire Agency. I utilized Langley to a huge extent, and [NASA] Ames Research Center [Moffett Field, California], to do a lot of the modeling and the Arc Jet [Complex] testing. Because of the rudder speed break, [NASA] Glenn Research [Center, Cleveland, Ohio] was looking at aerosurfaces and bearing surfaces and how they work in space. They were giving me a lot of information on that. Langley was doing CFD [computational fluid dynamics] models for me. Every part, not only the human space flight Centers, but every part of this Agency focused in. [NASA] Dryden [Flight Research Center, Edwards, California] was doing testing for us, and so on and so forth. So I had all the resources of this entire Agency kind of pointed at us, and this Agency was focused on Return to Flight.

Of course, then we achieved Return to Flight, and we had a little bit of an issue. We had to almost do it over again. Not really, because a lot of the things we had done, we really had to focus on one particular area, which was the PAL ramp (protuberance air load ramp), and we did. We did that.

Katrina hit, and to be honest with you, Mike Griffin during Return to Flight, had a different view of NASA, a different view of what the CAIB recommendations said and how the implementation should be done. Sean had us headed down one path, which was this Independent Technical Authority.

Mike took that and changed to model more of a matrix organization and a governance model that was different, slightly different, from where Sean was headed; probably more like what NASA started out to be back in the old days. It was somewhat difficult for some of us to understand. Because Mike spent so much time with me in those four months before STS-114, I had the great opportunity for Mike to explain that to me in great detail many, many nights in a row.

So when I came away and went to Stennis, I understood the governance model that Mike Griffin was bringing to NASA and what his expectations were. I do believe that having that opportunity to spend that time with Mike helped me understand it a lot better. I think other people that didn't have that opportunity struggled with it a little bit. They're getting there, but they didn't have the in-depth insight that I was able to gain by having all those conversations with Mike about Return to Flight. So I was able to then implement some of that at Stennis when I got there, even during the Katrina recovery kind of operations. I was also able to bring some of that to the Kennedy Space Center when I got here.

At the Kennedy Space Center, one observation would be engineering was embedded in the programs and projects. Mike's vision of the governance model says that engineering is a central institutional organization that then gets matrixed out to the various programs and projects. We've had to implement that at Kennedy, and that's a change, a cultural change but also an organizational change, that's probably thirty years in the making, and we're kind of changing that whole approach.

We've done it. We've completed the organizational change. We're working on the cultural part of that, and it's going to take us a while. We implemented the change late last year,

and it's going to take us a couple of years to really change the culture of how we operate. But we're on our way to doing that.

I don't know if I answered the question.

WRIGHT: No, no, it's great. In fact, you answered a couple questions. Following that train of thought, you were talking about the changes in the culture, tell us about what you plan to implement as part of your strategic vision for this Center in order to meet the expectations from Dr. Griffin as well as to reach the goals for the Vision for Exploration.

PARSONS: Well, I think Dr. Griffin—I think Mike Griffin has established a strategic vision. He's given us the overarching governance model and the strategic vision, and that's for us for implementation. So I look at my role as not being as much strategic as it is tactical, in a way. My goal is to go in now and take that vision, that strategic vision he's laid out, and then put forth a Kennedy Space Center implementation plan, tactical plan, that will take us over the next five years.

So that's what we've done. We went and got the senior staff together. We sat down, and I had three tenets, really. I wanted us to be innovative, credible, and accountable.

We need to be innovative, and what that means is flexible; being able to pick up on new and better ways to do things; be flexible in that take this governance model and go implement it in innovative ways, not just plug and chug and make it like everybody else. Look at it from an innovative kind of way.

I wanted to be credible with our stakeholders, and that's our programs and projects that are located here, the programs that are being run out of Johnson and Marshall; when they look to

Kennedy Space Center, that we're credible in what we're doing and how we're doing it, and they believe that we are competent to do that. I also want to be credible to NASA Headquarters. We don't want to tell them we can do something that we can't, and when we say we can do it for this budget in this amount of time, we want to have the credibility with our NASA Headquarters folks and our programs and projects that they believe we can pull that off.

Accountable means that once we say we're going to do something, then we have to go do it. That means you're accountable for what you have told people that you can go do.

So we took those three tenets, and we then got together, and each program, project, and institutional mission support directorate looked at what did they have to do to map to the governance model the strategic vision that Mike Griffin has given us. How can you map to that, put together your credible, innovative, accountable plan to go do that, and make sure that, again, it maps directly to what Mike Griffin has said we're going to go do. We're about ready to come out with that plan. We've worked on it for a few months here. It's just about a week or two from prime time.

But it's just about ready to come out, and it's, ten or fifteen pages worth of what I say is KSC's implementation plan. I think we call it something else. I think we call it "Plan Guidance," because seriously, I don't think I set where this Agency is going. This Agency has established where it's going, and Kennedy is just a piece of that. We've got to figure out how we put together an implementation plan that matches up to that.

WRIGHT: What do you feel the biggest challenges of meeting those goals of that plan is going to be?

PARSONS: Trying to run three, four programs, projects here at the Kennedy Space Center and all at the same time. This is probably more than we've ever done.

We have the LSP Program, which is the Launch Support Program. That's a program that was moved here in the past ten years, and it does expendable launch vehicles. What they do is actually buy the expendable launch vehicles for the various spacecraft that JPL [Jet Propulsion Laboratory, Pasadena, California] and [NASA] Goddard [Space Flight Center, Greenbelt, Maryland] and others fly. Then they integrate that spacecraft with that expendable vehicle, and they ensure that that vehicle is as risk-free as it should be to go fly that spacecraft and make sure that the spacecraft gets to where it's supposed to be and can do the mission it's supposed to do. So that's one program we've got here.

Then we have the Space Station, where we're processing the hardware. We have Shuttle, which we're trying to process and fly the next fifteen, sixteen missions, then retire. There is a whole workforce involved in that. Then we've got the Constellation Program trying to build up, and the budget challenges that go with that with the gap.

LSP is working very well, extremely well. I think we have our arms around that, but we do have some challenges there, some new things that we've got to go do like securing some new vehicles. Space Station, they have work to do even after we retire the Shuttle, but it's going to be less, and we know that. We figured that out. But they've got work out through 2016 and beyond, so they're not feeling large effects of this transition.

We're retiring the Shuttle in 2010. That workforce has got to transition to Constellation, and it's already obvious that it's not going to take as many people on Constellation as it did on the Shuttle Program. So dealing with that transition, dealing with the facilities that are going to become available that I'm either going to have to mothball or find different users for; dealing

with the fact that there's a fairly significant amount of the workforce that will not be picked up on the new program, and how does that impact our ability to fly the Shuttle safely up to 2010.

Then figuring out also, working with Mike Griffin and Headquarters and Rex Geveden and all those folks, on what work might come here to fill that gap so that we don't have a large layoff like we did in Apollo [Program]. Mike Griffin has committed to me that he's going to work with us to make sure that some work does come here to where we don't lose a huge amount of our workforce and all these skills. Then trying to bridge that gap between 2010 and now 2014 or so when we fly the first Ares 1 mission.

So those are fairly significant challenges for the Kennedy Space Center and for the Agency overall. But for Kennedy, it's going to be very noticeable, because the design Centers like Marshall and Johnson are just going to be designing away. An operational Center like us, what we do is process, test and verification, and launch. From 2010 to sometime in 2014/2015 we're not going to do that. How do you keep a workforce, that skilled workforce, connected and here to bridge that gap? It's going to be a challenge for us and for the Agency.

WRIGHT: What are some of the lessons learned or some of the experiences that you've had, since you've come up through the ranks with the agency, that you're going to be applying as you look to the future?

PARSONS: You pick up so many things along the way, and you don't realize that you know these things until the opportunity arises where you have to go apply them. I've had such a great opportunity to be mentored by some of the top people in NASA. Dr. [Christopher C.] Kraft [Jr.], who was the Center Director at Johnson Space Center, I had the opportunity to meet him, get to

know him, and he has been someone who has offered me a great deal of advice. When I became the Shuttle Program Manager, he walked in with a white paper, sat down with me for two hours, and said, "Let me tell you what I think about what your challenges are and what your opportunities are and what I think you can do to overcome some of this." So, I've had Dr. Kraft as someone that has called on me and mentored me and talked to me.

Jay Honeycutt, who was the Center Director here at the Kennedy Space Center, is still a very good friend and mentor and someone that still calls me on a fairly regular basis, and we have conversations. Roy Estess; he had been the Acting Deputy Administrator and the Center Director at Stennis, but an icon within NASA who took me under his wing and shared with me a lot of the challenges that they've had through the years and ways that they've dealt with those things.

George Abbey; I was his Deputy, and although he may be a somewhat controversial individual in some people's eyes, but also probably one of the finest gentlemen I've ever worked for. No one could have given me more responsibility at an earlier part of my career than George Abbey did. Not only that, didn't even question me. He'd let me go do things, allowed me to make a few mistakes, and then brought that back to me.

I can go on, Sean O'Keefe and Dan Goldin and Mike Griffin and so on and so forth. The thing I guess I bring to the table is all those dots get connected with all these mentors and all these people that I've had the opportunity to work with that have shared with me so many of their lessons and so many things that they've learned, and the opportunity to pick up the phone and call any of them at any point in time. I still have those connections even today.

So even beyond the 1990 time frame when I came to work for NASA, I've had all this opportunity to sponge off the brains of all these guys that worked from the early sixties on. So I

think what I bring to the table is a history that I've gained from sponging off all these great people, and then utilizing what I've learned from them and making my own mistakes along the way and getting put into positions of great responsibility by this Agency, that helped me get through those hard times, because I didn't do that all by myself.

I had a lot of support from a lot of different individuals in this Agency, and to be able to then utilize all of that as we develop this new program, we retire the Shuttle and bring on this new Constellation Program. I don't know how to describe it, but it's this mentorship and support and all of that history that I think I bring to this moment that I'm going to get the opportunity to apply and hopefully continue to learn from as well.

WRIGHT: You shared with us earlier about the impact of the Shuttle launch and how that affected you. What do you perceive to be NASA's impact on society as a whole, and what would you like for NASA? What role would you like for it to serve in the nation?

PARSONS: Well, it's hard for me. I'm such a patriot, and I truly believe that—I was a part of the United States Marine Corps, which is probably one of the finest organizations that you can ever be a part of. Seriously, when I left the Marine Corps, and I did so because I thought, "Well, I need to go pursue other things," I didn't realize when I left the Marine Corps that I was leaving this organization that was this high-performing organization. I thought other organizations would be a lot like the Marine Corps, and it turned out they're not. So you leave that, and you look back, and you go, "I'll never be a part of something that great again."

Then I had the opportunity to come to work for NASA, and what I've realized is NASA is just as high-performing an organization as the Marine Corps. I feel connected once again to

people that do great things, that “quit” is not in their vocabulary, “can’t” is not in their vocabulary. Adversity, when they run up against it, and I’m talking about the people at NASA, they overcome it, and they always find ways to solve any problem that’s in front of them, any problem that’s in front of them.

So here I am; once again I’m a part of an organization that’s just the finest of the finest. I guess I would want the American people to know that. I don’t think they realize that sometimes. I still think that NASA has a trademark or name recognition beyond other organizations. I think they’ve seen the movie, *Apollo 13*, and they realize that we can solve problems. I’d still like for the American public to know that that’s the NASA of today. It still is the NASA of today, after *Challenger*, after *Columbia*, and this new vehicle that we’re going to develop, all these things we’ve done. We’ve overcome all those kind of “failure is not an option” kind of thing, and we continue to do that.

I believe that what we provide to the American public is this organization that can solve technical problems in the peaceful pursuit of exploration. I think the American people would—I guess I’d use what Roy Estess has said to me a number of times. He said, “We could kill the human space flight program. The American people could decide to do that and just cut the funding off, and it would end, and our grandkids would declare us idiots and restart the program in a couple of generations.”

I truly believe that. I believe that it is important to the U.S. to be leaders in space, to explore space, to be leaders in the peaceful pursuit of exploring space, because we could go do it in the military and do it from a militaristic kind of view, and I don’t believe that is the best thing for the world. For us to control space peacefully with international partners makes the world a much better place, and I think that we need to continue to understand that.

I hope our leadership, and I mean political leadership, understands the impact that has on the world. So I guess what I would want the American people to know is, yes, it's a little bit about exploration. It's a little bit about technology development. It's a little bit about what we bring back to you with this small investment that you make, in the cell phones and the other things that maybe come from some of the technology we develop.

But probably more importantly is, I think, the impact it has on the world in the peaceful pursuit of international cooperation of exploring space. So I think it makes the world a better place, more internationally capable, and I guess I would want the American people to understand that that's important, very important, and I don't think we have stressed that importance enough, how important that really is.

WRIGHT: As the vision starts to develop more, and Kennedy has, of course, historically been a human space flight Center, how do you feel that you will involve robotics, and what do you think the importance for the space agency is to have a balance or have the interchange of robotics and human interaction?

PARSONS: Well, first of all, the vision says we're going to do it with both, robotics and human exploration, and I truly believe robotics plays a huge part in setting the path—the robotics is going to be the first thing that goes out and gets us the information we need to make sure that we can get there with the humans and do the right things. So the robotic missions are extremely important to the pursuit of the vision to then allow the humans to get there and have the knowledge that they need to survive and do the kinds of things that they need to do on the Moon or even Mars. So we need to continue to do those robotic missions.

Right now I think we're planning some robotic missions of the lunar surface and all, and that's going to be important to set up where we establish our habitats and what's the best place to do that, and even though we have some knowledge of the Moon, getting us better prepared for that. Also, I think, then from that point then you've got to continue the robotic missions of Mars, because there's still an awful lot to learn about Mars, and we're learning something every day with missions we're sending towards Mars.

I think Kennedy plays a part in that, first of all, we're going to have a lot of skills that are going to be displaced as we retire the Shuttle. These are aerospace skills that have been built up over twenty-five, thirty years. I think that we can capture some of those skills with new work, and so not only with the facilities that are going to be made available when the Shuttle retires, but a workforce that's very capable of doing aerospace and spacecraft hardware kinds of work. They're going to be available here, and some of that work could very easily be done here.

Now, whether it works out that way or not, it remains to be seen, but I know the State of Florida is committed to that. They're willing to invest. I don't know if you know, but the O&C [Operations and Checkout] Building was made available to the Orion spacecraft manufacturers. The State of Florida put \$35 million towards that end, and brought that work here. That's work that we wouldn't have captured without that kind of investment, so the State of Florida, with what they call Space Florida, is pursuing other investments like that in facilities and other things here at the Kennedy Space Center to kind of draw that work here.

So I truly believe that we will have an opportunity, whether it's robotics or other kinds of work not traditionally done at Kennedy Space Center. But we can do these things at the Kennedy Space Center because of our skilled workforce and the facilities that can be available and the investment that the State of Florida is willing to make, and that the Agency wants to see

us stay as level as we possibly can and not have a huge drop-off of our workforce. You put all that together, and I think Kennedy Space Center has an opportunity to pick up nontraditional kind of work and maybe even work on spacecraft like robotic spacecraft and things like that. We have some opportunities there. It remains to be seen. It all has to come together, and we have to be prepared when that opportunity arises.

WRIGHT: NASA started out its life with NACA with aeronautics. What do you feel the future is going to be for that aspect of NASA as well?

PARSONS: Well, first of all, they haven't grown at the rate that they had intended to grow because of the exploration vision. It sounds like a cut, and it's not a cut. It's really they just haven't grown at the rate they intended to grow. So aeronautics is still a major investment within NASA. I think we needed to get focused on what it is NASA's role is in the aeronautics area.

We had a briefing from Lisa [J.] Porter, who's the AA [Associate Administrator] for Aeronautics, at the last SMC [Senior Management Council], actually, and so I had a little bit of an insight. It's one of those things, we in human space flight, we don't look over the fence very often. But Lisa came in and kind of explained what she's doing in the area of priorities for NASA and what she thinks the roles of NASA are in aeronautics, and how they're going to connect up with the FAA [Federal Aviation Administration] and other agencies, the Department of Defense. She's a part of this community that's put together this team that's looking at how NASA plays in and the overarching strategic goals of the U.S. as far as aeronautics goes.

NASA has a part to play. The FAA has a part to play. The Department of Defense has a part to play. There's other agencies out there that have a part to play in this. So what I think

Lisa Porter and Mike Griffin have actually done is they've been able to say, "This is NASA's role," and I can't articulate that as well as the aeronautics folks can, "and this is how we're going to participate, and these are the dollars that we're going to put into that."

So what I heard a couple of weeks ago says that we have a plan, that we have a role, that we have enough, maybe not as much as some people would like, but enough funding and resources to apply to that. Not only that, we have the skills at Langley, Dryden, Glenn, and other areas; we have the skills to apply to that as well, and at Ames. So we have skills, we have funding, we have a plan, and we have a role to play in the overarching U.S. strategic goals in aeronautics.

So I think we have a path forward. It looks promising. I think what Lisa Porter had to do was say, "We're not going to do these things," and she took away some of the things that we were doing because they were distracting, really, to the overall "this is where we should be going." And with the money that we have, you can only do so many things.

That's one of the things that I've really liked about Mike Griffin. He's willing to stop certain things due to the fact that there's only a certain amount of resources. So he says, "Even though we've been traditionally in these areas, those aren't areas that I think NASA should be doing. We'll let other agencies or other government agencies pick that up, or commercial sector pick that up, and we're going to focus on what I think NASA should be doing." In the world of politics that's not always easy, but he's been able to do that better than some of the other Administrators have done in the past.

WRIGHT: Before we close up this segment, this part of this interview, I'd like to ask you, since you've had such an interesting path in the agency, why would you encourage a young person to join NASA and have NASA as a career?

PARSONS: Well, I have encouraged a young person, and he's called my son. I have a twenty-four-year-old son that's a NASA engineer over here in the International Space Station. You know, he's smart enough to have done a lot of different things. Back when he was in the seventh grade, he came out here. Come to Work with Your Dad Day or something like that; I can't remember what they call it. He was somewhat interested, but he was still more interested in money. As he went through college, he was still looking at "What's going to get me the best job and I can make the most money?"

He called me up one day, and he said, "Hey, I'm thinking about Co-op, and what do you think about that?"

I said, "Well, I think it's a great program, and I think you ought to contact NASA." This is when I was in Houston—or no, at Stennis even. So I said, "You ought to contact KSC and see if you can get in the Co-op Program," and he did that.

He got in the Co-op Program, and he came out here, and what he found out was what we all find out when we come out here is this is noble work. This is work that people throw their life into, and it's tough. It's not easy work, and it's stretching the bounds of technology in all different kinds of ways.

You work around some of the greatest people you could ever imagine. The people that you were in contact with on a daily basis are some of the best, and they're not doing it for the money. They're doing it because they love technical issues and problems and solving problems,

and because they like to be a part of human space flight. So my son, when he graduated, could have gone off and probably done a lot of other things, and he chose to come to work for NASA, and I couldn't be more proud that he's doing that.

People like Kevin Clinton here. The guy's smart enough. He just got back from getting his master's at Stanford [University, Stanford, California] in electrical engineering. Now, can this guy go find other jobs and do other things and make more money than a NASA civil servant? He absolutely can. Does he want to? Not really. This is what he wants to do. He's doing it because it is, again, noble work and work that he truly can learn something from every day.

So I just say that if you want to be a part of something great, if you want to be a part of something difficult, if you want to be a part of something that can make you feel like a true American, that you're contributing to our greatness, then come work for NASA.

I have a friend that's not in this business, and what he keeps saying is with the exploration vision, why would an engineer want to work anywhere else? He's a political science major, but he keeps telling me that, and it reminds me that if you're an engineer coming out of school and you want to be a part of the cutting edge, why would you want to work anywhere else but at NASA? That's kind of how I feel, too.

WRIGHT: That's a good way to stop, and we'll take a break for a minute.

PARSONS: Okay.

[End of interview]