

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

EDITED ORAL HISTORY TRANSCRIPT 5

SHANNON W. LUCID
INTERVIEWED BY JENNIFER ROSS-NAZZAL
HOUSTON, TEXAS – APRIL 22, 2021

ROSS-NAZZAL: Today is April 22nd, 2021. This interview with Shannon Lucid is being conducted in Houston, Texas, for the JSC Oral History Project. The interviewer is Jennifer Ross-Nazzal. Thanks again for coming over.

LUCID: Oh, my pleasure.

ROSS-NAZZAL: I appreciate it. One of the questions that I was thinking about was the astronaut selection in 1980. There were two more women selected. Do you think that had any impact on the corps, adding more women to the mix? Or did that not have much of an impact at all?

LUCID: I don't think it made that much of an impact. You know what I mean? By that time women were old news.

ROSS-NAZZAL: Okay, I wondered about that, if that really was a big thing or it was just minor.

LUCID: No.

ROSS-NAZZAL: It was only two women.

LUCID: Yes, the big thing was no one knew why on Earth they were selecting a 1980 group. You had all these people sitting there that weren't flying. You know what I mean? They always had many more astronauts than they needed. That was the big thing. No one understood why.

ROSS-NAZZAL: I think Dave [David C.] Leestma had told me they called themselves the Needless 19.

LUCID: There was always this rumor going around that when they selected the '78 group, the reason that the announcement had been delayed some was because they had originally come out with just a couple of females and then Congress said it had to be more. A congressman told me this once. They went back up, and some more were put in. Some of the guys in the '80 group were under the impression that they had been taken out of the '78 group so that a couple females could be added. That was just interesting; it was never confirmed. But it was interesting that there were some guys in the '80 group that thought they had been moved down because of whatever had gone on.

ROSS-NAZZAL: I had heard that rumor. It's interesting that a member of Congress had mentioned it to you.

LUCID: He wouldn't say anything; he said his lips were closed. He said there were just five decimal points of separation. They must have had some kind of numerical rating that they were doing because he said it was just that some squeezed in and some squeezed out. It was interesting.

ROSS-NAZZAL: That is interesting.

LUCID: The other thing, since we're talking about the '78 group—just after we were selected the question that newspaper reporters, when they called up, would ask, they would say, “Hmm, have you read Walt Cunningham’s book *The All-American Boys?*” I would say yes. The next question they asked is, “How on Earth do you think you’re going to fit in?” I said, “Well, I’m going there to work. I’m sure I can do the job.”

ROSS-NAZZAL: I managed to look at that video that I showed you last time. They have one with audio. I thought it was very interesting because there was footage of you and the family.

LUCID: Oh, you found that one?

ROSS-NAZZAL: I did. NASA had gone, I guess, to Oklahoma. It was you in the lab.

LUCID: Oh, they came up to the lab? I’d forgotten that.

ROSS-NAZZAL: Yes, I’ll have to show you. I saved it. It’s you in the lab, and then it’s an interview of you in the MOCR [Mission Operations Control Room], but it actually has audio this time. It was very interesting, because of course they asked you about your thoughts on being maybe the first woman in space. Your answer was something like, “Well, it’s not the most important thing that I’m the first woman in space. The most important thing is that I get to go

and participate.” You said you’d done a lot of things in life, but you never thought about, “I’m doing this as the first woman, or I’m a woman doing this task.” It was interesting. I liked seeing the video of you and the family. It was cute to see all the kids.

Before Sally’s [Sally K. Ride’s] flight there were a number of things that they had to come up with. One was that female hygiene kit. Did you weigh in on that?

LUCID: No, I didn’t. But I do remember somebody—I think I already told you this. Somebody mentioned that they were checking to see the makeup. I said, “Why on Earth do you need makeup in space?”

They said, “Because we’re going to have thousands of pictures and I want to look my best.”

I said, “Okay.” But I wasn’t interested in anything like that. That wasn’t part of my job anyway or else we probably wouldn’t have had any.

ROSS-NAZZAL: I was curious if they gathered you all together for things like that.

LUCID: Not that I remember. Somebody might have sent around a questionnaire. Then I would have put my opinion in.

ROSS-NAZZAL: Check your box. What about the DACT? Did you participate in testing of that at all, the Disposable Absorption Containment Trunk?

LUCID: Oh yes, because I did a lot of EVA [extravehicular activity] runs. I did an EVA run and used it. After they were doing it, and I don't remember exactly when, the timeframe, but I told them, I said, "Look, why are you spending so much money on the DACT?" To me it was a tremendous amount of money for something that you were just going to urinate in and throw away. I said, "Look, in old folks' homes they have these wonderful, wonderful disposable diapers."

My memory could be wrong, but my impression is that I was the first person to use a real disposable diaper in an EVA run, because they said, "Well, we can try it."

ROSS-NAZZAL: That's interesting. Was that before you flew?

LUCID: Oh yes. We had lots of time before I flew.

ROSS-NAZZAL: Did you have trouble using the DACT?

LUCID: Oh, no.

ROSS-NAZZAL: The reason I ask is because you spend so much time as a young child learning not to do that. I could just think that that might be difficult to be like, "Now I'm not going to control my bladder."

LUCID: Oh, no. There was no problem. But I think the disposable diapers came pretty early. Pre-launch you wore just regular disposable diapers. I don't remember what point they came in.

I won't mention any name, but I happen to know the male astronaut who asked why he had to use the urine containment system that they had for the males when they could just use a diaper. After that the males also used a diaper. It was much more convenient.

ROSS-NAZZAL: The male system seems a lot more complicated.

LUCID: It's uncomfortable. I'm not a male, so I don't know. But I remember that comment very clearly.

ROSS-NAZZAL: I was curious what your memories are of STS-7, and where you were when that mission launched.

LUCID: I was a Cape Crusader, so I was down at the Cape [Canaveral, Florida]. I was working one of the night shifts then I got up to make sure that I could see the launch. I was on the beach; I wasn't at the official launch site. I was at the apartment or the motel, wherever it was I was staying.

ROSS-NAZZAL: Just a memorable event for obvious reasons. You said you were a Cape Crusader for STS-7. What were you working on until you were named to a flight?

LUCID: Oh, just about everything. We talked about that. I worked in SAIL [Shuttle Avionics Integration Laboratory], and I worked out at FSL [Flight Systems Laboratory]. Norm [Norman E.] Thagard and I did rendezvous, when they started working with rendezvous; we actually put

together a training manual, because we felt we ought to get other people trained, but no one was too interested.

I worked with Owen [K.] Garriott and was following SLS [Spacelab Life Sciences]-1. Oh, I'm sure there were a lot of other things. I worked as a Cape Crusader. I cycled through most of these jobs many times.

ROSS-NAZZAL: I bet. You were in the office for quite a long time. I wasn't sure if there was something else that we hadn't talked about.

LUCID: I can't think of anything offhand.

ROSS-NAZZAL: What are your memories of finally being assigned to a mission?

LUCID: One Saturday George [W.S.] Abbey called me up and asked me if I could come in for a few minutes, so I did, and all he asked was, "Would you be interested in flying this?" I said yes. That was the end of the conversation, so I left. I went home, and Mike was out mowing the lawn. I said, "Well, maybe I've been assigned to a flight." It was noncommittal. Obviously, you don't like to get your hopes up.

Monday, because I shared an office with J.O. [John O. Creighton], actually we shared an office for years and years and years. It was odd how they kept moving people around, but we always ended up in the same office together. He was beating around the bush, and I was beating around the bush. Finally, we came to the conclusion that we were on the same flight.

ROSS-NAZZAL: He didn't tell you who was on the mission?

LUCID: I think I knew who the commander was, but I wasn't real sure. Yes, it was very odd. That was the only time I can remember George Abbey talking to me since I'd been hired.

ROSS-NAZZAL: For five years? Wow!

LUCID: Yes. There was, I guess, no other occasion.

ROSS-NAZZAL: Were you getting to a point where you were worried that you might not be assigned a flight, it had been so long?

LUCID: Not really, because there was this rumor that George Abbey had gotten some award for being such a tremendous selector. I don't have any proof of this; this was just a rumor. Since he had selected and done such a wonderful job selecting the 35, we felt like all 35 of us were going to fly, because if he didn't fly us all that would negate the awesomeness of getting the award. That gave us a little bit of hope. We figured that.

ROSS-NAZZAL: I was just curious because it seemed like you were waiting a while. Then Steve [Steven R.] Nagel got selected, but he was appointed as a mission specialist for that mission.

LUCID: Yes. Steve Nagel was such a wonderful guy. He probably was one of the best guys in our class. They just don't come any better than Steve. Steve's problem was that he was Air

Force. He wasn't the only one; there were some other people who their problem was that they were Air Force. I can still remember we were sitting in Building 3 eating lunch with a few people from the office, and this was before we were named as a crew. There were several different people, and I was eating lunch with them.

Of course, the topic of conversation everybody always had was who's going to get assigned to what and why hadn't this person flown. That was the thing that everybody talked about. We were sitting there, and they were going down the list of people that hadn't flown. Somebody said, "I just don't understand why Steve Nagel hasn't been assigned to a flight." They were going on about all his tremendous attributes.

Another person—I remember this so clearly—said, "Yes, there's just nothing negative about Steve except he does go to church every Sunday." That was the only negative thing that anybody could come up with.

ROSS-NAZZAL: That's a shame. What did you think of the fact that he was going to fly as an MS [mission specialist] and not a pilot? Were people bothered by that fact?

LUCID: Oh, I was bothered. I just thought it was a tremendous slam not only against Steve but the Air Force. But Steve handled it so well. He was just absolutely superb. You would say, "How can he possibly?" Then you think, "I wish I had such strength of character as that." He was immediately assigned to the Spacelab flight with Germans right after that, to fly as a pilot with Hank [Henry W.] Hartsfield, so actually he was training for both missions at once. Somebody had asked Dan [Daniel C. Brandenstein] if Steve could do both and Dan had said,

“Absolutely.” I remember hearing Dan tell Steve, “You go train. Whatever you need to do. If there’s ever a conflict, you do that.”

ROSS-NAZZAL: That’s good. That’s nice.

LUCID: Yes, that was.

ROSS-NAZZAL: During that period there were so many flights that kept shifting. You were originally assigned, I think, STS-51A and then you became 51D and then you became 51G. Would you talk about those iterations and what impact that had on the crew and training?

LUCID: Oh yes, we were going to fly on STS-51B, and we went to our preflight press conference because we were getting ready to launch. Launch was coming right up. We did the press conference about what a wonderful flight this was. We were going to go on I think it was LDEF [Long Duration Exposure Facility], etc., etc. We talked about all of our responsibilities. We went back to our office, and as soon as we got in the office, 51B was canceled, just like that. So we slid from March.

Back in those days they just slid people all around. We were slid into the June timeframe. It was STS-51G. We had different payloads, a whole different flight that we were going to do. The crew changed because we had been going to fly with Greg [Gregory B.] Jarvis, and we had gone out to California with him. Then he got slid into the *Challenger* flight [STS-51L].

I think this is an interesting bit of trivia. Back in those days the PSs [payload specialists], which Greg was, got one T-38 flight in the back seat of a T-38, so Dan took him up for his one T-38 flight because he was going to fly with us. The next time Greg was in a T-38, he was ashes in an urn, and Dan flew him back from the Cape. I just thought that's—

ROSS-NAZZAL: Yes. Oh my gosh. I did not know that.

LUCID: We enjoyed being with Greg. We were obviously sorry that he slid off the flight and everything changed.

ROSS-NAZZAL: You were also with Charlie [Charles D.] Walker? I think Charlie was originally assigned to your flight for a while.

LUCID: It could have been. Yes, I think you're right.

ROSS-NAZZAL: I know things were very fluid.

LUCID: Yes, you just didn't hang on to things very much. Things didn't happen till they happened, and you just had to be very flexible and flow with the river.

ROSS-NAZZAL: What did you think of a flying payload specialist? What did the other mission specialists think of that concept?

LUCID: It was like they were taking away slots from people. There were so many astronauts in the office, and there were so few flights. We had realized we're not going to do 50 flights a year at that point. It was like they were taking away a slot from somebody else that could fly. It was just all the feelings that you would normally think that were there.

I'm discussing a lot of rumors, but this actually happened. I can't remember exactly, because I wasn't part of it. I heard the story. When the '80 group came in they had a couple of European people that came in as payload specialists. Maybe you could ask somebody that's in the '80 group, and they can tell you exactly what happened. When they were in there at a meeting, George Abbey made the Europeans leave because they weren't part of the group. No, it was very bad. No, it wasn't good.

ROSS-NAZZAL: I hadn't heard that. I'll have to see who else is still on the list to be interviewed. Talk about the next payload specialists that came on board. You had a Frenchman, Patrick [P.R.] Baudry, and then you had a Saudi Arabian prince who was going to be part of your group. How did that work? Shifting to work with them.

LUCID: It worked out fine. You actually didn't train much with the payload specialists. Switching out payload specialists didn't make that much difference in what you were doing on the flight. I was going to help Patrick a little, so I did the Doppler experiment with Patrick, so I worked with a French PI [principal investigator]. They did a couple of sims with us. But they didn't have any orbiter responsibilities.

ROSS-NAZZAL: I thought it was interesting in that film [[STS 51G Feature English LR - YouTube](#)]. They talked about how it was Ramadan when they were training. Was that an issue?

LUCID: It was Ramadan when we launched because Sultan [Salman Al-Saud], his first job on-orbit, he reported that he saw the Moon when he was in orbit. So that ended Ramadan, that was the report. No, it wasn't an issue. Interestingly, I know somebody that was a pointer in mission control. She happened to be Jewish. She didn't think that it was right for NASA to require her to do the orbit when Ramadan was going to happen, so she talked to me a lot about that. She wasn't happy as a Jewish person being asked to support Ramadan.

ROSS-NAZZAL: I never would have thought of it. I didn't even think about it till I saw the film.

LUCID: Yes. When we were down at the Cape and when you're in crew quarters, you normally eat together, obviously. But Sultan did his own thing because he wasn't eating during the daytime because it was Ramadan.

ROSS-NAZZAL: I know you don't like to talk about other people, but I wonder if you would talk about the crew camaraderie and how your crew built that. It's my understanding that a lot of crews spent a lot of time together, but they would also try and bring in families and do things together. Was that the case for this flight?

LUCID: It was just wonderful being part of the 51G crew. They were just super. Everybody did their job. It was just an absolute joy to be with them and work together. We shared an office. I

think everybody appreciated everybody else in the crew and just really had a good time together. It was a crew where everybody wanted the best for everybody else. It was a team. You were really working together. Some crews don't jell like that. But I was very very fortunate that for the first flight I was able to be on a crew that was a real team.

ROSS-NAZZAL: That's great.

LUCID: Yes, it was.

ROSS-NAZZAL: You had mentioned quarantine. Was your sister still here and able to help Michael?

LUCID: Yes.

ROSS-NAZZAL: I was curious about that because I know you have to go into quarantine so many days before the flight. Were the kids able to come out and see the launch?

LUCID: Yes, but this was in the days before NASA provided the immediate family transportation down to the launch. I can tell you how that happened too. You were scrambling trying to figure it out. NASA provided for the spouse but none of the rest of the family. Mike was going to fly down with the spouses. Then we had to make arrangements for the girls and Michael to fly to KSC [Kennedy Space Center, Florida]. We found some cheap tickets for them, and they flew

down. Then they met up with my parents at the Orlando [Florida] airport, so there was a newspaper reporter there, and they wanted to talk.

My father, he never met a newspaper reporter that he didn't think was wonderful, so he was telling them whatever. Then they wanted to talk to the kids, but the girls went and hid in the bathroom. But Michael couldn't go into the female bathroom, so he was out there. They were so embarrassed because of what Michael was saying. I have no idea what he was saying.

ROSS-NAZZAL: I'll have to look for that article.

LUCID: As I remember, I don't think it necessarily made any news. Like I said, NASA didn't provide for family. It was just after *Challenger*, if my memory serves me right, that I was talking in the hall with Pinky [George D.] Nelson. We were talking about *Challenger*. Pinky said, "That would have been so bad," because I believe the flight before, his flight had slipped 1,000 times, so they didn't have the money to bring their girls down. Their girls were sitting at home watching the launch on TV by themselves. Pinky said, "Can you imagine how bad that would have been?" I agreed with him that that was just absolutely unconscionable to leave your kids, with no provision whatsoever.

We went and talked the management into—shamed them into thinking they needed to do something about this. They finally agreed and so from then on kids 16 and younger, because if you're over 16, I don't know, it had something to do with the government regulations—they had to define what was a child—the kids 16 and younger could ride down on NASA transport.

They also started to have family support person who would be available if some family members had to be left in Houston or were not at the launch. That was a very good thing.

ROSS-NAZZAL: Yes, that really is. Did you help draft that plan?

LUCID: Yes, Pinky and I wrote it up. Then it was overtaken by—

ROSS-NAZZAL: By other people in the office or legal?

LUCID: It did get implemented. I remember then for one of my launches the girls—they were above 16 so we had to pay for them to go down there—one of them asked me, “Why are we flying from Houston and up to Kansas and then down to Florida?” I said, “Because it’s a Braniff flight, and it’s the cheapest flight there is.” She said, “Couldn’t we have gone direct?” I said, “Costs too much money.”

ROSS-NAZZAL: Where did the family end up staying for your first mission? Were they in a hotel or a condo? Do you recall?

LUCID: I don’t know because I wasn’t there. I think they were in a motel room somewhere.

ROSS-NAZZAL: It’s my understanding that before a mission there is a party for that crew member. Did you have a party?

LUCID: Yes, we did. The crew had one all together. I forgot where that one was. Obviously, I wasn’t there.

ROSS-NAZZAL: No, the crew doesn't get to participate.

LUCID: No. They just pay the money.

ROSS-NAZZAL: Did you invite anyone other than friends and family? I know sometimes people invite big-name people, John [H.] Glenn and other folks. Just family?

LUCID: I didn't invite Jane Fonda.

ROSS-NAZZAL: Oh. Right.

LUCID: Did you hear that story?

ROSS-NAZZAL: I did. Didn't [Public Affairs Office (PAO) Director] Brian Duff get fired?

LUCID: Somebody did. The story was—and I wasn't directly involved—that when Sally flew, Jane Fonda had been invited, and then the Reagans, who were there, they said, "How did this happen?" They were extremely distressed or upset. Anyway, the person heard that there was somebody in PAO that got fired over it. Sally had requested the invitation. I always thought it was curious that somebody else got fired for it.

ROSS-NAZZAL: That's interesting, yes.

LUCID: But that's the way the government works.

ROSS-NAZZAL: I guess you can point to many examples of that.

LUCID: Yes.

ROSS-NAZZAL: Would you talk about training for the flight that you eventually flew? You had been training on LDEF and some other things. But you were going to deploy three satellites. Then you also had the SPARTAN [Shuttle Pointed Autonomous Research Tool for AstroNomy] on board. Would you talk about that and RMS [remote manipulator system] training and things of that nature?

LUCID: Yes. Obviously, we had to quickly change around what we were doing. Because John [M.] Fabian was going to be the primary RMS operator on LDEF, he took over responsibility for the SPARTAN. Except I deployed the SPARTAN because it had less RMS activity and John liked to share. John captured it and put it back in the payload bay because we'd been doing LDEF, and that was also a release and rendezvous. So, the crew was already trained up on rendezvous, so we just had to change for the SPARTAN. It wasn't a huge delta difference.

ROSS-NAZZAL: Were you often training with the pilot and commander? Or were you training all as a crew together?

LUCID: We did a lot of training as a crew together in the SMS [Shuttle mission simulator].

ROSS-NAZZAL: Any interesting anecdotes or fun stories that you recall from that mission for training that you would be comfortable sharing? I know you don't want to talk about your friends.

LUCID: Are we in flight now?

ROSS-NAZZAL: No, just training, on the ground.

LUCID: In training? I hadn't thought about the training back then so much. We had a good time flying together. They quit doing it, but back in those days when you had a long mission you would train for like 24 hours, so you actually went through the whole flight. They had a cot there in the SMS, and you would go to sleep there when it was nighttime. If it was for 24 hours you spent a whole 24 hours there, and they rotated through different training teams.

We just had a very good time together. I can't think of anything specific in the training. But maybe I'll think of some things. I hadn't thought about that. That was so long ago.

ROSS-NAZZAL: I know it's a long time ago.

LUCID: The one thing was that there was a discussion among the crew as to who was going to be the hundredth person in space.

ROSS-NAZZAL: How do you calculate that?

LUCID: I told Steve Nagel that he was the hundredth person because it would have been between Steve and me. I said, "The reason why it's you is because you're sitting in the MS-2 slot. Your nose is ahead of mine, and so you actually are getting there first." That's how Steve became the hundredth person in space.

ROSS-NAZZAL: I didn't even know that.

LUCID: There's not a better person to have been the hundredth person in space.

ROSS-NAZZAL: That was nice of you to give him that opportunity.

LUCID: Not everybody can be the hundredth person. We all need something to set us apart.

ROSS-NAZZAL: I wanted to ask you about something that John Fabian had told me. He mentioned that ARABSAT did not pass a safety review, it failed every one of them, and the crew recommended that you not fly that satellite. What are your memories of that?

LUCID: I've got vague memories of that. I don't know, I just had this feeling that there were things going on at [NASA] Headquarters [Washington, DC] that we didn't really know about. Back in those days, and you'd have to look at the history, but there was a lot of where was America going to get oil. There were a lot of politics between Saudi Arabia and the U.S. There

were a lot of political things going on that we didn't really know, but we were part of some political story in some way. That was just a feeling that we had.

This was sort of training. Crewmembers could fly items in the flight kit, small items for yourself or for other people, your personal items. One day I was the only one in our crew office and the phone rang and I answered it. Somebody said that if Sultan was going to fly the Koran, he needed to get it over to them. It was past time to have it submitted.

I said, "Huh. NASA is going to let him fly the Koran?"

He said, "Yes. Just tell him to get it over here because it's past due."

I said, "Isn't that interesting? Because the Koran is a religious book."

He said, "Well, yes."

I said, "But you realize that none of the NASA astronauts can fly any kind of religious item?" I understood it was a government thing, whatever. Separation of church and state.

He said, "Like what?"

I said, "We can't fly little Bibles, and Sultan can?"

He said, "That is not right."

I said, "Well, that's what I was told."

He hung up. He was very offended by that. Not less than 20 minutes later I got a phone call from about as high up as you could get at NASA. They said, "Shannon. You go get a Bible and bring it over here and put it in your kit."

ROSS-NAZZAL: That's funny.

LUCID: Oh, it was hilarious. I ran out and bought three little—they had to be tiny, three little New Testaments—and put them in for my kids. That was very funny.

ROSS-NAZZAL: Yes. Especially since you weren't really pushing for it, kind of serendipity.

LUCID: Oh, no, I certainly understood the regulation. You don't ever mix church and state. They were very careful what they would fly because people could look to see. They didn't want any controversy.

ROSS-NAZZAL: That's funny. Why don't we go to the day of launch? What are your memories of that day, of getting up? This is the big show.

LUCID: Yes. We got up; we went out. The crew was just real happy at breakfast. We went out and we got in the vehicle, and it was a gorgeous day. We actually launched on time. It was just amazing.

ROSS-NAZZAL: I think J.O. told me that he remembers when you all launched there was this spontaneous cheer from the crew. Do you remember that?

LUCID: Yes, because no one expected it really. I was up on the flight deck on that flight. I remember oh my goodness, how quickly the sky became dark. Then all of a sudden you were in orbit and you were floating. It was just super.

ROSS-NAZZAL: Was it everything that you expected because it had taken so long for that day to get there?

LUCID: Oh yes. You don't really count your chickens before they hatch.

ROSS-NAZZAL: It's probably a good idea.

LUCID: At least you're in orbit. Made it that far. Hopefully you land someday.

ROSS-NAZZAL: Talk about the deployment of those satellites and how all of those went for the crew.

LUCID: Oh, they went great. John and I deployed the satellites. Everything went real slick, just like it was supposed to. You couldn't ask for anything better.

ROSS-NAZZAL: No hiccups on any of those.

LUCID: No. They went really well. Then we deployed SPARTAN. As they were retrieving SPARTAN, Dan was flying the Orbiter and John was working the arm, and they had to make a few special maneuvers with the arm. John had to go a little outside of the envelope to get the SPARTAN. They did a super job. They got it. It was just superb.

ROSS-NAZZAL: I was watching your crew video when you came back. I noticed there was a clip where they filmed all the crew sleeping. I noticed that you were in the air lock, which I thought was interesting. Was there a reason that you decided to sleep in the air lock?

LUCID: It was cooler. It was just a nice place to sleep.

ROSS-NAZZAL: I wasn't sure if it was an issue of privacy.

LUCID: Oh, no, no. It was just a nice place.

ROSS-NAZZAL: They said, "That's Shannon right there." Couldn't see you. Everybody else looked like they were little mummies. Did your kids get a chance to go to Mission Control and see you in space or talk to you in space during that week?

LUCID: No. I will tell you one interesting thing that Kawai said after I got back, because I was asking, "What did you think of the launch?"

Kawai said, "Well, I don't want to hurt your feelings, Mom. But we went and we watched the IMAX movie the afternoon after the launch."

ROSS-NAZZAL: *The Dream Is Alive?*

LUCID: Yes. She says, "I cried when I watched the movie, but I didn't cry when you launched." Because they had all that nice music. She said, "The launch really needed a little bit of music."

ROSS-NAZZAL: At least she was kind about it.

LUCID: Oh yes.

ROSS-NAZZAL: Would you talk about your involvement in the SDI [Strategic Defense Initiative] experiment? I know Steve was in charge of that.

LUCID: What experiment was it?

ROSS-NAZZAL: For Star Wars where they were doing a laser pointer from Hawaii. Were you involved in that at all?

LUCID: Oh, I wasn't all that involved with it, no. You'd have to look back, but I just have this feeling that we got the wrong coordinates from Mission Control. So then they had to change it. I think it was written up in the *New York Times*. I don't remember exactly because I wasn't directly involved.

But I'll tell you the most unusual thing that happened on that flight. One night I was up on the flight deck. I was the only one on the flight deck, the lights were off, and it was dark. I was looking out at the night. Everybody was downstairs getting ready to go to bed. It was evening. I looked, and on the horizon I saw this huge orange ball coming up, and my first thought was, "Wow, someone has let off an atomic bomb! How are we going to get home?" That was my first thought.

But then it ascended a little bit, and all of a sudden it broke apart like a balloon that burst. There were all these bright lights. I hollered down to John to come look. He came up, and he saw the tail end of it. It got completely black, and then there were nine little triangles all in formation that were flying. It was down beneath us.

John and I talked about it, and he said, “Well, we shouldn’t talk about this, because we don’t know what this is that we saw.” It was obviously something. We told Dan and Dan said, “Just don’t talk about it.” Because we didn’t know exactly what it was. We had foreign nationals on board. You didn’t know. It was obviously something that had launched, and we didn’t know.

When we got back and we were doing our debriefs then Dan said, “Just don’t say anything.” John and I were just really curious, and we wanted to know. We wanted to talk to Mission Control—just where we were and what happened. Then Dan, because he was the commander, talked privately with George Abbey. When he came back, he evidently had told George. Dan told John and me, “Don’t you ever mention that to anybody, ever.” I said, “Okay.”

We never did, we never talked about it. John and I talked about it off and on wondering what it was. John told me when he left NASA, and he went back to the Air Force—because he had a high security clearance—he nosed around to see, but he couldn’t find anything. John and I decided what we had seen was a multiple reentry vehicle: when a missile launches and they have multiple warheads on it.

Finally, the day came when Mr. Abbey was no longer with NASA, I asked somebody high up. I said, “Can I talk about this now?”

The person said, “Sure, no problem. If you want people to think you’re crazy.” But then it was so long after the fact that no one cared. But that was the most spectacular thing that I saw

in any of my flights. There were these nine triangles, and they were in groups of three that were headed back. It was pretty amazing.

ROSS-NAZZAL: Yes, that sounds pretty cool. It's too bad you couldn't get a picture of it. I understand why you couldn't.

LUCID: It was real quick, but I have the picture in my head.

ROSS-NAZZAL: Yes. Let's see. You mentioned about the Bible. Were there any other mementos that you took up with you in your Personal Preference Kit? Anything for Michael or your other family members?

LUCID: Yes. I flew watches for the girls. I have to ask Michael what I flew for him. I did fly something but I don't remember exactly. It wouldn't have been that flight. On one flight I flew a fox tooth for Michael. That's what he wanted me to fly for him.

I remember I rushed to the store because they said we had to turn something in. I asked the girls, I said, "What do you want me to fly for you?"

Kawai says, "Well, does the object change when you fly it? What's special about flying something in space?" They didn't have anything. So I quick ran to Alameda Mall, and I bought two nice watches, one for each of them.

I said, "Well, I'll fly these for you." Kawai said, "Well, it's not going to change. What difference does it make?" They weren't super impressed.

ROSS-NAZZAL: She sounds kind of like you in little ways. That's funny. Buzz Aldrin decided to take communion on the Moon. Was there any way that you commemorated this event with your religion? You didn't have a special prayer or anything that you did?

LUCID: No.

ROSS-NAZZAL: I figured based on what you just described to me about separation of government work and religion.

LUCID: No. But one thing that I thought was interesting, when I got back, newspaper reporters, one question that they asked a lot, because the Russians at some point had said—and you'd have to look back to see just when it was—they'd been in space, and they hadn't seen God. Newspaper reporters would ask, "Did you find God when you were in space?"

I said, "Well, I didn't have to go to space to find God because God is everywhere. God found me down here on Earth." That's the good news. You don't have to go to space to find God. You can find him wherever you are. But I just thought that that was interesting that that was a question that I was asked several times because of what the Russians had said on one of their flights.

ROSS-NAZZAL: That is interesting. Do you think they asked you that because they knew of your religious upbringing? Or did they ask the rest of the crew that?

LUCID: I doubt it, you know how reporters are. They just fish around with questions trying to come up with some kind of a quote.

ROSS-NAZZAL: Oh, sure, yes, a great headline that they can write a story about.

LUCID: Americans also agree there's no God in space. That would have been a good headline. Russians and Americans agree on something.

ROSS-NAZZAL: Did you take any music with you onboard the flight? I know people took Walkmans with them.

LUCID: Yes, we took a cassette tape that you could fly.

ROSS-NAZZAL: Did you take any music that you enjoyed listening to?

LUCID: I took *Les Mis*. I had that, and I listened to that some.

ROSS-NAZZAL: Do you have any favorite memories from the mission?

LUCID: There were tons.

ROSS-NAZZAL: That you would like to share on the recorder? I know you might want to keep some of them private.

LUCID: This was sort of funny. One day I seem to recall the fluid shifts. I was looking, and I remember I was floating there. I was looking at my legs and my waist, and I thought ooh. John Fabian says, “What? Are you admiring how skinny your waist is now?” That was sort of funny.

ROSS-NAZZAL: Do you have a favorite photo from that mission?

LUCID: Not that I can think of. There’s tons. I have lots of pictures at the house. I can look through them and see.

ROSS-NAZZAL: What about landing? You were on the middeck for the landing?

LUCID: Yes.

ROSS-NAZZAL: How was that flying compared to the launch?

LUCID: It was just fine. But I do remember as we were coming down, Dan was really good about keeping everybody up to date with what was going on. He came on the loop and said, “Well, we’re a tenth of a G now,” and I felt so heavy. I thought, “You mean I have to live all my life this heavy?”

ROSS-NAZZAL: When you landed at Edwards [Air Force Base, California] was Mike there?

LUCID: Yes.

ROSS-NAZZAL: Were the kids there as well or were they here in Texas?

LUCID: No, they were here, and then we flew back to Ellington [Field, Texas]. They were out at the airport. When I went up to the kids to hug them Michael's very first words were, "What are you going to cook us for supper? I'm so tired of pizza."

ROSS-NAZZAL: Is that what your sister and husband were serving them?

LUCID: That's what Mike had been serving. They evidently ate a lot of pizza.

ROSS-NAZZAL: That's funny. Welcome home, Mom, we missed you so much. I did want to ask you because in the film Patrick Baudry and John Fabian both talk about the fact that this was the first really international crew in space. I wonder if you would talk about that and its importance from your perspective.

LUCID: I think one of the great things about the Shuttle was it really opened up spaceflight for people of other nations. I just think that was a very big thing. Not only was the Shuttle a vehicle that could allow many different kinds of Americans to fly, different sizes and different genders, but it also gave the opportunity for people of other countries to fly. Up to that time the Russians were flying their guest cosmonauts and getting good things from a political standpoint because of

flying people from countries that they wanted to be friendly with. But no, I think international cooperation was a wonderful asset of the Shuttle.

ROSS-NAZZAL: After this flight it's my understanding that you went at least on two PRs [public relation tours]. I'm guessing you did a PR to your hometown in Bethany, Oklahoma.

LUCID: I don't think I ever did one there.

ROSS-NAZZAL: You didn't do one there? I just assumed that that first flight—that's Shannon Lucid Day.

LUCID: No.

ROSS-NAZZAL: Did you go to France with Patrick?

LUCID: Yes.

ROSS-NAZZAL: Would you talk about that? I understand that was a great PR but the spouses were not happy because they didn't get to go.

LUCID: Yes. We had a real good time in France. The French were just absolutely super hosts. Patrick was a wonderful host. We traveled around. You think, "Ooh, should we be able to do all this?" We were working and getting paid for it, and it was a superb vacation except that you did

have to work and make speeches. But Dan was the commander, so he did most of the talking. It was really fun for the rest of us.

One thing that I thought was really interesting, the French provided a plane that flew us around to the different places, and the pilot of the plane was a female. She was one of the first—my impression—French female pilots in the Air Force. I assume it was the Air Force. It was a military plane. Her English was limited and of course my French was nonexistent, but we did get to talk a little bit together. I just really enjoyed talking with her.

But then what was interesting, because John Fabian and I, we were extolling the virtues of having a female fly us around. After we started extolling the virtues, all of a sudden Sultan had his own airplane. He showed up at all places, but he was flown there by the Saudi Arabians in their airplane. I just thought that was very interesting.

ROSS-NAZZAL: That is. I wonder why. Speaking of the Saudis, and of course I would like to capture this history because other people have told me stories about this, and I wanted to get your perspective, and that's that Saudi PR. It's my understanding that you had no intention of going. Different people have told me different stories, so I thought I would ask you to tell me what happened.

LUCID: We were looking forward to doing PRs to France and Saudi Arabia because it's international travel, and who wouldn't want to do that? Then they were talking about the trip to Saudi Arabia. The people that were in charge of arranging it, my first input was I'm doing just what the crew does. I'm not going to be separated out somewhere different. Then the whole

thing came up about being a female. You couldn't go if you didn't have a male that was your honorary whatever. It was pretty crazy.

Then I looked it up, because Queen Elizabeth went there. I think—I could be wrong—but they classified her as an honorary male. I remember this part. Someone said that maybe you could be an honorary male. At this time in the news there was a soccer team from Australia going to South Africa. It was some big soccer thing. There were Black people on the soccer team in Australia. But to let them go play, they were going to be honorary whites. I thought this was the most gross thing I've ever heard of. Why can't you just be who you are?

Anyway, so I refused to be an honorary male. Then they said they could work it out. They said Dan could have been my honorary something, and I said no way. The schedule came down, and all the crew was doing something, and I was off doing something different. I said, "No way. I'm part of the crew. I either go as a crew, or I don't go." So, it was decided I was not going to go.

The day came for them to leave, and all the crew left. I was sitting there in the office by myself feeling sorry that I had principles, and it was cutting me out of international travel. I really did like going places. The phone rang, and it was an important person in NASA. They called up and said, "Shannon, you're going to Saudi Arabia."

I said, "I'm here; the crew has left." They said, "Go over to Building 1, pick up your passport, go home, because a NASA driver will pick you up in one hour. Sultan's mother is insisting that you come, and you're going to go to the fashion show that they're having there."

I said, "Well, I'm not wearing a burka, whatever."

They said, "Just go. You don't need it."

Michael was home. He had a fever that day, so I quick ran to the drugstore because he was out of Tylenol, got some Tylenol, and I called up Mike. I said, "I'm leaving and I don't know where I'm going or what I'm doing but I'm getting picked up in an hour." I dashed home, I gave Michael the Tylenol, and I said, "I'm leaving, but your dad knows and he'll be home."

I quick threw something in a suitcase because I assumed I might need a suit. I threw my suit in the suitcase. Then I was picked up, and I was brought down to Intercontinental [Airport, Houston, Texas]. Then I was met by somebody there and brought to an airplane and put on an airplane, and all they said was, "Someone will meet you in," I think it was New York I flew to, if I remember correctly. I thought, "Okay, that's fine with me." Of course, I had like a \$10 bill in my pocket. That was all. I had my passport, but I had a credit card.

Then when I got to—I think it was New York—I was met by somebody from Saudi Arabia. They didn't say anything, they just said, "Follow me," so I did. I waited somewhere. Then they came to get me in a little bit. They put me on an airplane. It was a Saudi Arabian airplane that was getting ready to take off. Of course no one spoke English. My impression was that I was the only non-Saudi on board.

They were taking off, and I couldn't understand all what was being said over the intercom because it was not in English. We took off. It was interesting because a lot of the people bowed down in the aisle and prayed to Mecca. It was very interesting seeing that. After we took off, I thought, "Hmm, I wonder where I'm heading." Then I thought, "Hmm, I wonder where I should get off." Then I thought, "You know, I'll just get off the first place we land."

I went to sleep and slept and then pretty soon we landed. I thought, "Well, might as well get off." I got off, and it was on a ramp in an airport. It was dark. This guy walks up to me and

he said, "I'm so-and-so from the American embassy. I was told you were going to be on this plane. Where are you going?"

I said, "Beats me, you're in charge."

He said, "Well, I think you're supposed to go to Riyadh." Then he said, "Let's find you a ride."

We were walking around, and he saw some Saudi Arabian dressed up in the gowns, he looked really important. He was getting into a Mitsubishi which was a small twin-engine plane, so the guy walked over to him and says, "Hey, where are you going?"

He said, "Riyadh."

He said, "Hey, can you take someone else with you?"

He said, "Sure."

He was flying, he was sitting in the pilot's seat, and I was sitting in the copilot's seat. We took off; he spoke great English. We had very nice conversation. He was telling me about his daughter that went to school in Switzerland and how she liked riding motorcycles but that's why she didn't like to come home, because she couldn't do anything when she came home. We had a real nice time, and he let me fly a little bit. Then he said, "Hey, you want to land it?"

I said, "Mm, most probably not." I figured that had the potential of having an international incident if I didn't do everything just right.

We landed and then there were some black limousines, and they drove me off. We went to a building, and then I was in like a huge dressing room bathroom type thing. There were all these female Saudis that were there. They were getting dressed, talking but not in English. Pretty soon someone came and got us and we went into this big banquet room, and so I was sitting; my impression was it was Sultan's mother I was sitting next to. I was sitting there. I

think we had a meal; I'm not sure. Then they were showing off some burkas as they walked down the aisle, the runway. It was really interesting. Then I kept thinking, "Hmm, wonder how I'm going to get home?" I was just curious.

Then I was brought to a hotel, and I slept for a little bit. I was woken up. I was with the crew for a few hours, and we went to some different places. But it was interesting because now, see, the other spouses were there. Every place we went was absolutely empty. If we went to the university there was nobody there. My thought was they had cleared it out since there were both males and females walking around together.

ROSS-NAZZAL: That would make sense.

LUCID: Then somebody said, "Okay, your flight home is such and such." They took me to the airport. I was thinking to myself, "I sure hope a ticket shows up." Then I was given a ticket, and I came home. That was my whirlwind trip to Saudi Arabia. That was that time.

Later, and I think it was for the twenty-fifth anniversary, because it was toward the end of when I was working for NASA, they were going to have a big reunion in Saudi Arabia and all the crew was going to come and some important NASA people. They asked if I would go. I was getting smart in my old age. I sent an e-mail to the appropriate NASA people, and I said, "I would love to go to Saudi Arabia, but I will not wear a burka and I am not going as an honorary anything."

The answer from Headquarters was, "Oh, no problem, no problem." So, I was all prepared to go, and I was getting ready. It was maybe two days before. I was sitting over at Mission Control, and I got a phone call from the head guy at Headquarters. He was saying, "Just

a few little things about the trip. We're just so excited that the whole crew is going to go." Of course, he was excited because he was going to get to go and the NASA administrator was going to go. It was a real boondoggle because everybody wanted to go.

I had even run out to the mall on my lunch hour to get some long-sleeved blouses so I'd be nice and conservative and wouldn't show any of my arm. Then just in passing, when we were getting ready to hang up, under his breath, he said, "And just for a heads-up, when you're met at the airport they'll have the burkas for you that you can put on."

I said, "Whoa whoa whoa whoa whoa whoa. Wait a minute. Wait a minute. I am wearing no burka."

He says, "Well, it's not really wearing it, just throwing it on. The administrator's wife has agreed."

I said, "Look, I will wear no burka. Just take me off the list. I'm not going."

He said, "Well, the administrator is going to be so disappointed."

I said, "I doubt it." Hung up. I told the people in PR who arrange the trips that I wasn't going.

Then a little bit later I had a telephone call from the head of FCOD [Flight Crew Operations Directorate], and they said, "Shannon, you're not going to go?"

I said, "No. Remember the e-mail I sent you? It said, 'I am very happy to go. I will not go if I'm required to wear a burka.' I was just informed that that was part of the requirement."

Then the person said, "Okay." I'd sent them the copy of the e-mail, and so there was nothing more ever said about it.

ROSS-NAZZAL: Wow. You're certainly a strong woman, that's for sure.

LUCID: No, it made me feel bad, because I do like to go and see things. But if you have a principle, you have a principle.

ROSS-NAZZAL: Yes. Good for you.

LUCID: There's nothing wrong with wearing a burka, if I was going to go as a tourist, but I was a representative of the United States government. As a representative of the government, you have a different standard than if you're going just as a tourist. You know what I mean? You would do different things. Of course you wouldn't go.

ROSS-NAZZAL: Do you think that your original stand was because you think men and women should be treated equally, so you weren't happy with the treatment from them?

LUCID: Oh yes, and the United States government had said we were going to be treated equally. That's why they couldn't force me to do something that was unequal. But if I'd wanted to do something bad enough that I was willing to compromise my principles, then I could.

ROSS-NAZZAL: Did anybody try and discourage you and say, "Oh, you really should come because you're a member of the crew and we want you to be there and it's no big deal"? No? No one tried to convince you otherwise?

LUCID: No. Didn't want any dissension. It actually made it easier for everybody if I didn't go.

ROSS-NAZZAL: John Fabian put this on the record about the crew's original visit to Saudi Arabia after your flight, so I just want to ask. John said that the king had asked where you were and that he called the president, who called the administrator, who called the Center Director, who called George Abbey. Is that the line that you recall?

LUCID: I was not told any of that. I knew it came from high up somewhere. Somebody had gone to the trouble to arrange everything. I was just a bit of flotsam in the river of life.

ROSS-NAZZAL: I just think it's interesting that they were adamant that you come, but then when you got there they didn't really have anybody arranged to take you.

LUCID: Sultan's mother wanted me.

ROSS-NAZZAL: Yes. But the fact that you just hitched a ride with somebody.

LUCID: That was funny. When I got home and we were at supper, I was talking about my trip. I was telling the family about how I got a ride to Riyadh. Oh my goodness, my daughters were aghast. They said, "What? You hitchhiked a ride on an airplane? Don't you know that you're not supposed to ever ever be a hitchhiker?" They were very upset because they didn't think that was—

ROSS-NAZZAL: How old were they at this point?

LUCID: They were in high school.

ROSS-NAZZAL: That must have made you feel better as a mom knowing that they weren't going to hitchhike.

LUCID: I had never thought that they would.

ROSS-NAZZAL: I think that was all that I had on my list. But I wasn't sure if there was something else that you wanted to share about the mission that you wanted to put on the recording.

LUCID: No. It was just a great mission. It was just absolutely practically perfect.

ROSS-NAZZAL: That's wonderful. We're a little over the hour that I promised you. I think this might be a good place for us to stop.

LUCID: Okay, that sounds good.

ROSS-NAZZAL: Okay, thank you.

[End of interview]