SLATE: What is your most memorable moment in space?

Leland Melvin: Let's see, you know we have most memorable moment in orbit,

I think we have all the technological things you do, the robotics, the spacewalks, the, you know,

doing transfer, looking at experiments but I think for me on the first flight in 2008 with Dr. Whitson

and the crew up on the International Space Station it was the moment that she said OK,

we're going to have dinner over in the service module and we all love to eat you know,

you guys bring the vegetables, we'll bring the meat and we all congregated around the table.

You know, French, German, Russian, Asian American, African?American, first female commander.

We're having this meal in space and we're going around the planet every 90 minutes, 17,500 mph

and you look out the window and you're going over Afghanistan or China or these places

that there's strife or all kinds of things going on and we're sitting up here with people

that we used to fight with. And so when you think about how transformative that moment was,

it was that we were all working together as one civilization for human exploration.
So having a meal in space, I call it the space smorgasbord, sharing meals with people that we used to fight with was I think one of the most inspiring moments of my life.

SLATE: Describe the view from space.

You know how Eskimos have like maybe 30 different shades of white to describe the texture of the snow for an igloo?

You probably need 50 different shades of blue to describe the water in the Caribbean because the blues are just so intense and I, you know, I have a few definitions of words to describe color but you can't do it justice with the vocabulary that we have for looking at the blue, the turquoise, the indigo, the azure, I mean just incredible colors. I think that was something that wasn't, you know, you don't think about color, I mean, I think about sunrise, sunset, the blackness of space and the snow-cap mountains but the blue of the water was just so stunning.

SLATE: Describe a space shuttle launch.

We're sitting there and they're counting down to about five minutes and they're saying, OK, it's looking pretty good, we're going to launch today. And then there's the "three, two, one"
and then the mains light and they're moving and you do the twang, you go forward and you come back

and as soon as you come back off the twang, those SRBs kick in and it's like infinite acceleration.

You know, you don't, you think of a fast sports car and you're going 100 mph and you accelerate

up to 100 mph, you're pinned in your seat, but this was like 100,000 times more intense than that

because, now granted we're only doing three G's at the maximum acceleration, but still,

you just feel like it's infinite. And you're pinned into your seat and you feel three times your weight on

your chest and you're hard to breathe, you're laboring to breathe a little bit and then the SRBs come off

and so the load gets a little lighter and you're going, wow, OK, we're heading to space.

I'd say it's that initial jolt and then seeing the planet leaving you at a rapid pace

was just so awe-inspiring.

SLATE: How is landing in a shuttle?

Yeah, I think the landing, you know, you're coming back in the atmosphere and

you're starting to build up the G's and you saw this plasma coming over the top of the orbiter and

you're thinking, wow, that's really hot. Back lower in the atmosphere and you're starting to
get some G's on you and then, you know, all the muscles that you didn't have to really use in space,

now you're having to fight against the resistance of the suit as well as the gravitational pull

and now we're starting to come over, you know, Central America, and coming up the coast

and heading to Florida and you know, you're just traveling so fast going around the planet

and it was like wow, we're coming home. You land, you hit the ground and then the vehicle starts

heating up, you get pretty hot. You start flipping switches. Eventually you come out but it's awesome

teamwork, working together, people on the ground, watching the planet as you're coming back home.

Hard to describe, again, just fantastic.

SLATE: What is your biggest challenge as NASA's Associate Administrator for Education?

I think with the space experiences, with working with people all around the world,

one of the things we can do is inspire. And I think if a child is not inspired,

even if a teacher is not inspired, a teacher has to be inspired to inspire a student,

so our charter is to inspire both teachers and students and also lifelong learners because

that is what's going to help fuel and continue to carry the message of exploration,

curiosity and discovery. So I thought that I had that piece of me to add to the mix to allow us
to help inspire the next generation. How do we put all this into the pot, the meat, the vegetables,
the spices to make this thing work and to get a kid to take a little sip of this, to take a little bite
of this and say, wow, I want to be an explorer! Wow, I want to be an astronaut! Wow,
I want to be a scientist that's developing the next cure for cancer! Wow, I want to be the engineer
that builds this new vehicle that takes us to Mars!
That's what we want to do, collectively with the nation and the world.
SLATE: Did you think you would become an astronaut?
You know, when I was an engineer at NASA-Langley, I was working there for 10 years
when a friend of mine said, "You'd be a great astronaut." And I'm like, "What are you talking about?"
I'd never really, I worked at Langley, you know, NASA, but I never really thought about the space
program as something that I could do because growing up I didn't really have aspirations of that.
I loved math and science but never really saw people that looked like me and saw space as an option,
didn't have a military crew-cut and flew high-performance jets and all those things,
but it was after he told me this that another friend of mine got into the corps that year
that I didn't apply. So I said to myself, well if that knucklehead can get in, I can get in.

But it was one of the best things I could have ever done with my life because it's opened so many doors from the standpoint of allowing access to kids and teachers, to let them see they can do anything they put their minds to. I would have never imagined being here today, coming off of two shuttle missions, and now being the associate administrator for Education but I think the things that I've done in my past have aligned me and gotten me ready to be here so that I could talk to you today about how we inspire the next generation of explorers.

Music