



Leland Melvin
NASA Astronaut

1
00:00:00,600 --> 00:00:21,390

Music

2
00:00:21,390 --> 00:00:26,800

SLATE: What is your most memorable moment in space?

3
00:00:26,800 --> 00:00:29,900

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

4
00:00:29,900 --> 00:00:35,920

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

5
00:00:35,920 --> 00:00:41,780

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

6
00:00:41,780 --> 00:00:45,420

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

7
00:00:45,420 --> 00:00:49,510

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

8
00:00:49,510 --> 00:00:54,390

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

9
00:00:54,390 --> 00:00:59,560

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

10
00:00:59,560 --> 00:01:06,740

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

11
00:01:06,740 --> 00:01:10,990

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

12
00:01:10,990 --> 00:01:15,810

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

13
00:01:15,810 --> 00:01:21,260

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

14

00:01:21,260 --> 00:01:24,480

it was that we were all working together as one civilization for human exploration.

15

00:01:24,480 --> 00:01:31,000

So having a meal in space, I call it the space smorgasbord, sharing meals with people that

16

00:01:31,000 --> 00:01:35,690

we used to fight with was I think one of the most inspiring moments of my life.

17

00:01:35,690 --> 00:01:39,120

SLATE: Describe the view from space.

18

00:01:39,120 --> 00:01:44,910

You know how Eskimos have like maybe 30 different shades of white to describe

19

00:01:44,910 --> 00:01:47,710

the texture of the snow for an igloo?

20

00:01:47,710 --> 00:01:52,230

You probably need 50 different shades of blue to describe the water in the Caribbean because

21

00:01:52,230 --> 00:01:58,890

the blues are just so intense and I, you know, I have a few definitions of words to describe color

22

00:01:58,890 --> 00:02:03,650

but you can't do it justice with the vocabulary that we have for looking at the blue, the turquoise,

23

00:02:03,650 --> 00:02:10,680

the indigo, the azure, I mean just incredible colors. I think that was something that wasn't, you know,

24

00:02:10,680 --> 00:02:14,980

you don't think about color, I mean, I think about sunrise, sunset, the blackness of space

25

00:02:14,980 --> 00:02:19,560

and the snow-cap mountains but the blue of the water was just so stunning.

26

00:02:19,560 --> 00:02:23,780

SLATE: Describe a space shuttle launch.

27

00:02:23,780 --> 00:02:26,850

We're sitting there and they're counting down to about five minutes and they're saying,

28

00:02:26,850 --> 00:02:32,010

OK, it's looking pretty good, we're going to launch today. And then there's the "three, two, one"

29

00:02:32,010 --> 00:02:38,510

and then the mains light and they're moving and you do the twang, you go forward and you come back

30

00:02:38,510 --> 00:02:43,410

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

31

00:02:43,410 --> 00:02:50,190

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

32

00:02:50,190 --> 00:02:56,560

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

33

00:02:56,560 --> 00:03:01,560

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

34

00:03:01,560 --> 00:03:06,590

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

35

00:03:06,590 --> 00:03:12,450

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

36

00:03:12,450 --> 00:03:17,700

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

37

00:03:17,700 --> 00:03:23,600

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

38

00:03:23,600 --> 00:03:25,530

was just so awe-inspiring.

39

00:03:25,530 --> 00:03:30,110

SLATE: How is landing in a shuttle?

40

00:03:30,110 --> 00:03:34,580

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

41

00:03:34,580 --> 00:03:39,550

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

42

00:03:39,550 --> 00:03:44,640

you're thinking, wow, that's really hot. Back lower in the atmosphere and you're starting to

43

00:03:44,640 --> 00:03:50,200

get some G's on you and then, you know, all the muscles that you didn't have to really use in space,

44

00:03:50,200 --> 00:03:55,560

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

45

00:03:55,560 --> 00:04:00,040

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

46

00:04:00,040 --> 00:04:04,500

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

47

00:04:04,500 --> 00:04:11,230

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

48

00:04:11,230 --> 00:04:16,710

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

49

00:04:16,710 --> 00:04:22,160

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

50

00:04:22,160 --> 00:04:28,300

Hard to describe, again, just fantastic.

51

00:04:28,300 --> 00:04:32,460

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

52

00:04:32,460 --> 00:04:36,480

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

53

00:04:36,480 --> 00:04:41,330

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

54

00:04:41,330 --> 00:04:47,500

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

55

00:04:47,500 --> 00:04:53,410

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

56

00:04:53,410 --> 00:04:58,700

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

57

00:04:58,700 --> 00:05:06,930

curiosity and discovery. So I thought that I had that piece of me to add to the mix to allow us

58

00:05:06,930 --> 00:05:11,890

to help inspire the next generation. How do we put all this into the pot, the meat, the vegetables,

59

00:05:11,890 --> 00:05:18,320

the spices to make this thing work and to get a kid to take a little sip of this, to take a little bite

60

00:05:18,320 --> 00:05:22,820

of this and say, wow, I want to be an explorer! Wow, I want to be an astronaut! Wow,

61

00:05:22,820 --> 00:05:29,250

I want to be a scientist that's developing the next cure for cancer! Wow, I want to be the engineer

62

00:05:29,250 --> 00:05:31,870

that builds this new vehicle that takes us to Mars!

63

00:05:31,870 --> 00:05:36,500

That's what we want to do, collectively with the nation and the world.

64

00:05:36,500 --> 00:05:41,170

SLATE: Did you think you would become an astronaut?

65

00:05:41,170 --> 00:05:49,010

You know, when I was an engineer at NASA-Langley, I was working there for 10 years

66

00:05:49,010 --> 00:05:54,760

when a friend of mine said, "You'd be a great astronaut." And I'm like, "What are you talking about?"

67

00:05:54,760 --> 00:06:01,200

I'd never really, I worked at Langley, you know, NASA, but I never really thought about the space

68

00:06:01,200 --> 00:06:07,640

program as something that I could do because growing up I didn't really have aspirations of that.

69

00:06:07,640 --> 00:06:14,400

I loved math and science but never really saw people that looked like me and saw space as an option,

70

00:06:14,400 --> 00:06:18,910

didn't have a military crew-cut and flew high-performance jets and all those things,

71

00:06:18,910 --> 00:06:25,800

but it was after he told me this that another friend of mine got into the corps that year

72

00:06:25,800 --> 00:06:30,990

that I didn't apply. So I said to myself, well if that knucklehead can get in, I can get in.

73

00:06:30,990 --> 00:06:35,920

But it was one of the best things I could have ever done with my life because it's opened

74

00:06:35,920 --> 00:06:40,660

so many doors from the standpoint of allowing access to kids and teachers,

75

00:06:40,660 --> 00:06:45,180

to let them see they can do anything they put their minds to. I would have never imagined

76

00:06:45,180 --> 00:06:50,530

being here today, coming off of two shuttle missions, and now being the associate administrator

77

00:06:50,530 --> 00:06:58,650

for Education but I think the things that I've done in my past have aligned me and gotten me ready