



**CELEBRATING *20 YEARS* OF
INTERNATIONAL SPACE STATION SPACEWALKS**

1
00:00:02,940 --> 00:00:07,269

[Music]

2
00:00:11,509 --> 00:00:09,190

so wow that was uh

3
00:00:13,749 --> 00:00:11,519

a huge experience in my life we worked

4
00:00:15,350 --> 00:00:13,759

for many years to get ready for that and

5
00:00:16,870 --> 00:00:15,360

then we were sitting in the crew lock

6
00:00:18,550 --> 00:00:16,880

which is this part of the airlock that

7
00:00:21,590 --> 00:00:18,560

goes to vacuum we were supposed to

8
00:00:24,070 --> 00:00:21,600

depressurize in 30 minutes that was the

9
00:00:25,750 --> 00:00:24,080

that was the theoretical thing but they

10
00:00:27,349 --> 00:00:25,760

missed the calculation somewhat and it

11
00:00:29,189 --> 00:00:27,359

took over an hour

12
00:00:31,429 --> 00:00:29,199

so i'm you know we're kind of anxious

13
00:00:33,110 --> 00:00:31,439

and then the capcom dan burbank

14

00:00:33,990 --> 00:00:33,120

whispered in my ear

15

00:00:36,389 --> 00:00:34,000

this

16

00:00:38,470 --> 00:00:36,399

is the anniversary of the first moonwalk

17

00:00:40,709 --> 00:00:38,480

and i did not know that and we weren't

18

00:00:42,790 --> 00:00:40,719

expecting to go out the door

19

00:00:44,069 --> 00:00:42,800

on that date and so anyway all those

20

00:00:46,950 --> 00:00:44,079

thoughts were running through my mind

21

00:00:49,029 --> 00:00:46,960

and and then as i went out the door it's

22

00:00:50,549 --> 00:00:49,039

very different than the shuttle i had

23

00:00:52,310 --> 00:00:50,559

done spacewalks from the shuttle and you

24

00:00:54,630 --> 00:00:52,320

have the payload bay underneath you you

25

00:00:57,270 --> 00:00:54,640

feel like you have a floor under you and

26

00:01:00,150 --> 00:00:57,280

we came out or i came out first

27

00:01:02,150 --> 00:01:00,160

and the hatch of the iss airlock points

28

00:01:03,670 --> 00:01:02,160

nader which means toward earth so as you

29

00:01:06,789 --> 00:01:03,680

look at the hatch you feel like you're

30

00:01:09,030 --> 00:01:06,799

falling from 250 miles and so that was a

31

00:01:11,590 --> 00:01:09,040

big rush everything we do at nasa is a

32

00:01:13,670 --> 00:01:11,600

great team effort and and i worked with

33

00:01:15,270 --> 00:01:13,680

the one of the greatest teams at nasa to

34

00:01:17,190 --> 00:01:15,280

develop this airlock and appropriate

35

00:01:19,510 --> 00:01:17,200

protocol and when i went out the door i

36

00:01:21,590 --> 00:01:19,520

had all their names on my cuff checklist

37

00:01:23,350 --> 00:01:21,600

and i really uh

38

00:01:25,270 --> 00:01:23,360

really showed in my appreciation for all

39

00:01:26,390 --> 00:01:25,280

the teamwork that it took and

40

00:01:28,390 --> 00:01:26,400

and

41

00:01:30,710 --> 00:01:28,400

it was really quite an amazing

42

00:01:32,630 --> 00:01:30,720

effort and when you look at it

43

00:01:34,469 --> 00:01:32,640

you know the space station was assembled

44

00:01:36,069 --> 00:01:34,479

from spacewalks it's maintained from

45

00:01:37,429 --> 00:01:36,079

spacewalks we've had to change out

46

00:01:38,469 --> 00:01:37,439

batteries and do all kinds of

47

00:01:40,230 --> 00:01:38,479

maintenance

48

00:01:41,830 --> 00:01:40,240

if you can't get out the door

49

00:01:44,149 --> 00:01:41,840

efficiently then you can't do all these

50

00:01:46,630 --> 00:01:44,159

space walks and so the implementation of

51
00:01:48,630 --> 00:01:46,640
the airlock with the pre-brief protocol

52
00:01:50,469 --> 00:01:48,640
that that was basically

53
00:01:52,550 --> 00:01:50,479
like two and a half hours which was

54
00:01:54,870 --> 00:01:52,560
actually very low compared to what we

55
00:01:57,109 --> 00:01:54,880
thought we'd have to do and then all the

56
00:01:59,510 --> 00:01:57,119
little tools that we developed for that

57
00:02:01,510 --> 00:01:59,520
mission things like the crew lock bags

58
00:02:02,469 --> 00:02:01,520
that you carry your tools in i worked

59
00:02:04,630 --> 00:02:02,479
with the

60
00:02:06,069 --> 00:02:04,640
the crew and thermal systems guys to

61
00:02:08,229 --> 00:02:06,079
design those

62
00:02:09,910 --> 00:02:08,239
and then we um i had actually invented

63
00:02:12,550 --> 00:02:09,920

this device called the body restraint

64

00:02:15,110 --> 00:02:12,560

tether that comes off your waist and you

65

00:02:15,830 --> 00:02:15,120

use that to hold on to a handhold and

66

00:02:19,910 --> 00:02:15,840

for

67

00:02:20,949 --> 00:02:19,920

that's enough to restrain yourself and

68

00:02:22,790 --> 00:02:20,959

so

69

00:02:25,110 --> 00:02:22,800

and we honestly probably couldn't have

70

00:02:27,510 --> 00:02:25,120

built station as well as we did without

71

00:02:29,830 --> 00:02:27,520

that feels great so all those techniques

72

00:02:31,910 --> 00:02:29,840

that that we really develop to do

73

00:02:34,070 --> 00:02:31,920

space walks from the space station have

74

00:02:36,150 --> 00:02:34,080

been used again and again and again to

75

00:02:38,470 --> 00:02:36,160

great success so the space walks on the

76

00:02:40,390 --> 00:02:38,480

moon will be very different than on iss

77

00:02:42,309 --> 00:02:40,400

so in iss we're doing some detailed

78

00:02:44,470 --> 00:02:42,319

maintenance changing out battery packs

79

00:02:45,670 --> 00:02:44,480

and things of this nature whereas on the

80

00:02:47,830 --> 00:02:45,680

moon

81

00:02:49,670 --> 00:02:47,840

we're there to explore and to take

82

00:02:51,910 --> 00:02:49,680

advantage of the human brain and

83

00:02:54,229 --> 00:02:51,920

judgment and their hands to do

84

00:02:55,670 --> 00:02:54,239

exploration so so the task will involve

85

00:02:58,149 --> 00:02:55,680

science we'll still have some

86

00:03:01,030 --> 00:02:58,159

maintenance to do on the rover there'll

87

00:03:02,710 --> 00:03:01,040

still be some of that but your daily

88

00:03:10,070 --> 00:03:02,720

spacewalks will be focused on the

89

00:03:18,869 --> 00:03:12,670

subscribe for more space