



1
00:00:12,789 --> 00:00:10,310
good morning discovery and a special

2
00:00:15,190 --> 00:00:12,799
good morning to you steve lindsey

3
00:00:17,990 --> 00:00:15,200
good morning mike and thanks to my

4
00:00:20,070 --> 00:00:18,000
family for that song

5
00:00:22,470 --> 00:00:20,080
houston discovery from the station for

6
00:00:25,910 --> 00:00:22,480
robo starting uh gravel now

7
00:00:29,910 --> 00:00:27,910
and this begins our robotics operations

8
00:00:32,549 --> 00:00:29,920
today as the station's arm will be used

9
00:00:33,990 --> 00:00:32,559
to reach over grab on to the obss

10
00:00:35,990 --> 00:00:34,000
lift it out of the payload bay and hand

11
00:00:38,950 --> 00:00:36,000
it off to discovery's robotic arm

12
00:00:42,830 --> 00:00:38,960
houston and discovery you are go for

13
00:00:44,869 --> 00:00:42,840

srms obss grapple

14

00:00:46,790 --> 00:00:44,879

okay cool describe your day

15

00:00:48,790 --> 00:00:46,800

all right can you see the cupola

16

00:00:51,029 --> 00:00:48,800

yes they can all right so this is a

17

00:00:53,590 --> 00:00:51,039

beautiful place to work from you'll see

18

00:00:55,670 --> 00:00:53,600

we're pointing towards the earth

19

00:00:57,270 --> 00:00:55,680

just beautiful panoramic windows and

20

00:00:59,029 --> 00:00:57,280

very fortunately we have the robotics

21

00:01:02,389 --> 00:00:59,039

workstation set up in here

22

00:01:05,509 --> 00:01:02,399

so that we can work with both the uh

23

00:01:07,350 --> 00:01:05,519

station arm and then in partnership with

24

00:01:10,870 --> 00:01:07,360

the guys over on the shuttle who have

25

00:01:13,030 --> 00:01:10,880

the shuttle robotic arm and today mike

26

00:01:14,230 --> 00:01:13,040

and i did some work moving the big

27

00:01:16,550 --> 00:01:14,240

shuttle boom

28

00:01:20,310 --> 00:01:16,560

out and around and handing it off to the

29

00:01:21,670 --> 00:01:20,320

um shuttle arm extension

30

00:01:23,990 --> 00:01:21,680

um

31

00:01:25,670 --> 00:01:24,000

later katie and i got to do a task that

32

00:01:27,350 --> 00:01:25,680

we call a walk-off which is where we

33

00:01:29,190 --> 00:01:27,360

take one end of the arm

34

00:01:31,429 --> 00:01:29,200

put it on a place on the station take

35

00:01:32,870 --> 00:01:31,439

the other end off and now the base and

36

00:01:34,870 --> 00:01:32,880

the tip are

37

00:01:36,390 --> 00:01:34,880

exchanged so basically this arm is very

38

00:01:38,069 --> 00:01:36,400

cool because you can move it all over

39

00:01:40,469 --> 00:01:38,079

the space station to different spots and

40

00:01:41,990 --> 00:01:40,479

it gives you different access to

41

00:01:44,789 --> 00:01:42,000

do all kinds of work across the space

42

00:01:49,109 --> 00:01:46,389

what are you up to today

43

00:01:50,630 --> 00:01:49,119

i am trent i'm a transfer in food

44

00:01:56,469 --> 00:01:50,640

delivering the crew care package

45

00:02:03,429 --> 00:01:57,830

hey katie

46

00:02:08,389 --> 00:02:05,190

so that's your day today

47

00:02:12,550 --> 00:02:08,399

a little robotics this morning did obss

48

00:02:14,470 --> 00:02:12,560

handover and uh doing transfer and uh

49

00:02:18,550 --> 00:02:14,480

learning how much i don't know about

50

00:02:22,869 --> 00:02:19,990

tell us what you've done today well

51
00:02:26,070 --> 00:02:22,879
let's see i i got up i flew through this

52
00:02:28,869 --> 00:02:26,080
magnificent station and then uh i got to

53
00:02:30,550 --> 00:02:28,879
remove the obss from the payload bay

54
00:02:32,550 --> 00:02:30,560
twirl it around and hand it off to the

55
00:02:34,309 --> 00:02:32,560
shuttle arm so the shuttle guys could

56
00:02:37,270 --> 00:02:34,319
that's us

57
00:02:38,949 --> 00:02:37,280
use it to look around and then i did the

58
00:02:40,949 --> 00:02:38,959
activation check out of the new

59
00:02:43,030 --> 00:02:40,959
tonometer with our eye simulators and

60
00:02:44,710 --> 00:02:43,040
now i get to go exercise

61
00:02:48,309 --> 00:02:44,720
mostly i'm just enjoying being back on

62
00:02:49,910 --> 00:02:48,319
this magnificent stack of modules

63
00:02:52,710 --> 00:02:49,920

i remember the first shuttle flight back

64

00:02:55,430 --> 00:02:52,720

in 1981 my three daughters don't they

65

00:02:58,470 --> 00:02:55,440

have no idea do you think space travel

66

00:03:00,550 --> 00:02:58,480

is getting to be old news what's next

67

00:03:01,670 --> 00:03:00,560

for nasa after the shuttle program is

68

00:03:03,350 --> 00:03:01,680

retired

69

00:03:05,430 --> 00:03:03,360

well i think the objective that nasa set

70

00:03:07,350 --> 00:03:05,440

out back in 58

71

00:03:08,710 --> 00:03:07,360

was that that space travel shouldn't

72

00:03:10,710 --> 00:03:08,720

really be news after a while it should

73

00:03:12,390 --> 00:03:10,720

be part of our routine existence so to

74

00:03:14,149 --> 00:03:12,400

think that we've had the space station

75

00:03:15,830 --> 00:03:14,159

continually inhabited for the last 10

76

00:03:17,430 --> 00:03:15,840

years so there are fifth graders who've

77

00:03:19,190 --> 00:03:17,440

never known the space station not to be

78

00:03:20,949 --> 00:03:19,200

in space with astronauts on board i

79

00:03:22,070 --> 00:03:20,959

think is a major success a milestone for

80

00:03:23,990 --> 00:03:22,080

nasa

81

00:03:26,390 --> 00:03:24,000

so what i look forward to in the future

82

00:03:28,070 --> 00:03:26,400

is when space travel becomes routine uh

83

00:03:29,670 --> 00:03:28,080

just as back in the 1930s only

84

00:03:31,270 --> 00:03:29,680

daredevils and barnstormers took to the

85

00:03:33,509 --> 00:03:31,280

skies and now we have everybody flying

86

00:03:35,190 --> 00:03:33,519

around in airlines at some point and uh

87

00:03:37,270 --> 00:03:35,200

before these children become

88

00:03:39,350 --> 00:03:37,280

old uh we should have routine travel

89

00:03:41,350 --> 00:03:39,360

people above the planet here above earth

90

00:03:43,110 --> 00:03:41,360

here and maybe traveling out to the moon

91

00:03:44,869 --> 00:03:43,120

for nasa i think the push out into the

92

00:03:47,830 --> 00:03:44,879

solar system is what's next for us go to

93

00:03:49,509 --> 00:03:47,840

the moon go to mars the asteroid belt to

94

00:03:52,550 --> 00:03:49,519

go and explore to push out the frontiers

95

00:03:54,710 --> 00:03:52,560

which we've been doing since 1958

96

00:03:56,270 --> 00:03:54,720

so here we have b alvin drew and steve

97

00:03:58,550 --> 00:03:56,280

bowen

98

00:04:00,149 --> 00:03:58,560

uncharacteristically speechless actually

99

00:04:02,149 --> 00:04:00,159

they can't talk because they're wearing

100

00:04:06,149 --> 00:04:02,159

masks

101
00:04:08,710 --> 00:04:06,159
because they're terribly comfortable

102
00:04:10,470 --> 00:04:08,720
and they're starting to uh pre-breathe

103
00:04:12,149 --> 00:04:10,480
oxygen to wash the nitrogen out of their

104
00:04:13,190 --> 00:04:12,159
bodies getting ready for their spacewalk

105
00:04:14,869 --> 00:04:13,200
tomorrow

106
00:04:16,150 --> 00:04:14,879
in about a half hour we're going to shut

107
00:04:18,150 --> 00:04:16,160
the door here and they're going to

108
00:04:21,670 --> 00:04:18,160
depress down to uh

109
00:04:23,270 --> 00:04:21,680
about 10.2 psi roughly about 10 000 feet

110
00:04:25,749 --> 00:04:23,280
in altitude and

111
00:04:27,350 --> 00:04:25,759
they'll spend the night there and uh

112
00:04:28,710 --> 00:04:27,360
we'll let them out for a short time in

113
00:04:30,310 --> 00:04:28,720

the morning

114

00:04:31,830 --> 00:04:30,320

to hit the bathroom and clean up a

115

00:04:34,070 --> 00:04:31,840

little bit and then we'll go back in

116

00:04:36,070 --> 00:04:34,080

here and they'll be on masks for that

117

00:04:37,590 --> 00:04:36,080

and once they get back in here we'll get

118

00:04:39,590 --> 00:04:37,600

them all dressed up in their spacesuits

119

00:04:41,270 --> 00:04:39,600

and ready to go out the door

120

00:04:43,510 --> 00:04:41,280

and our commander has given them all

121

00:04:45,110 --> 00:04:43,520

sorts of words of encouragement and also

122

00:04:46,469 --> 00:04:45,120

told that if they do a bad job he won't

123

00:04:48,469 --> 00:04:46,479

let him back in