



# Space to Ground

1  
00:00:06,470 --> 00:00:04,870  
houston station on space to ground

2  
00:00:08,950 --> 00:00:06,480  
welcome to space to ground i'm Leah

3  
00:00:10,790 --> 00:00:08,960  
cheshire mustachio the space station has

4  
00:00:12,150 --> 00:00:10,800  
seven inhabitants hard at work once

5  
00:00:14,390 --> 00:00:12,160  
again

6  
00:00:16,630 --> 00:00:14,400  
on november 11th nasa astronauts kayla

7  
00:00:18,550 --> 00:00:16,640  
baron rashachari and thomas marshburn

8  
00:00:19,990 --> 00:00:18,560  
and european space agency astronaut

9  
00:00:21,510 --> 00:00:20,000  
matthias maurer arrived at the

10  
00:00:23,830 --> 00:00:21,520  
international space station aboard

11  
00:00:25,189 --> 00:00:23,840  
nasa's spacex crew 3 mission the

12  
00:00:27,269 --> 00:00:25,199  
astronauts launched on wednesday

13  
00:00:29,109 --> 00:00:27,279

november 10 just two days after their

14

00:00:30,790 --> 00:00:29,119  
counterparts returned home on the crew 2

15

00:00:32,549 --> 00:00:30,800  
mission and leading to the fastest

16

00:00:34,630 --> 00:00:32,559  
turnaround in history between a landing

17

00:00:36,069 --> 00:00:34,640  
and a launch the crew will live and work

18

00:00:38,389 --> 00:00:36,079  
aboard the orbiting laboratory for

19

00:00:39,910 --> 00:00:38,399  
approximately six months to keep up with

20

00:00:41,830 --> 00:00:39,920  
their mission follow the international

21

00:00:43,030 --> 00:00:41,840  
space station on twitter instagram and

22

00:00:45,110 --> 00:00:43,040  
facebook

23

00:00:47,350 --> 00:00:45,120  
as soon as the crew 3 cohort arrived it

24

00:00:49,110 --> 00:00:47,360  
was time to get down to business

25

00:00:50,709 --> 00:00:49,120  
one of the major areas of scientific

26

00:00:52,950 --> 00:00:50,719

research on the space station is on the

27

00:00:54,630 --> 00:00:52,960

astronauts own bodies some of the first

28

00:00:56,069 --> 00:00:54,640

experiments they perform help determine

29

00:00:57,750 --> 00:00:56,079

their acclimation to the microgravity

30

00:00:59,590 --> 00:00:57,760

environment testing functions like

31

00:01:00,950 --> 00:00:59,600

dexterous manipulation effects on the

32

00:01:02,950 --> 00:01:00,960

central nervous system and depth

33

00:01:04,390 --> 00:01:02,960

perception changes in bone and muscle

34

00:01:06,230 --> 00:01:04,400

mass due to the release of phosphates

35

00:01:08,149 --> 00:01:06,240

stored within and how an astronaut's

36

00:01:10,070 --> 00:01:08,159

ability to visually interpret motion

37

00:01:11,990 --> 00:01:10,080

orientation and distance may be affected

38

00:01:13,590 --> 00:01:12,000

by the space flight environment these

39

00:01:15,350 --> 00:01:13,600

studies help us better understand how to

40

00:01:17,270 --> 00:01:15,360

prepare for and mitigate issues on

41

00:01:18,870 --> 00:01:17,280

long-duration space flights and also

42

00:01:21,429 --> 00:01:18,880

provide insight on how to improve

43

00:01:23,109 --> 00:01:21,439

similar conditions for people on earth

44

00:01:24,950 --> 00:01:23,119

after its arrival to the space station

45

00:01:27,030 --> 00:01:24,960

in august north of grumman's cygnus is

46

00:01:28,390 --> 00:01:27,040

scheduled to depart on saturday november

47

00:01:30,469 --> 00:01:28,400

20th

48

00:01:32,390 --> 00:01:30,479

cygnus arrived with over 8 000 pounds of

49

00:01:34,069 --> 00:01:32,400

supplies scientific investigations

50

00:01:35,749 --> 00:01:34,079

hardware and other cargo on the

51  
00:01:37,429 --> 00:01:35,759  
company's 16th commercial resupply

52  
00:01:38,310 --> 00:01:37,439  
mission to the station over three months

53  
00:01:39,990 --> 00:01:38,320  
ago

54  
00:01:41,749 --> 00:01:40,000  
northrop grumman named this spacecraft

55  
00:01:43,749 --> 00:01:41,759  
after former nasa astronaut ellison

56  
00:01:45,590 --> 00:01:43,759  
onizuka the first asian american

57  
00:01:47,270 --> 00:01:45,600  
astronaut flight controllers will

58  
00:01:49,270 --> 00:01:47,280  
command the canada arm 2 to detach

59  
00:01:50,950 --> 00:01:49,280  
cygnus and the waste packed inside and

60  
00:01:52,630 --> 00:01:50,960  
release it for a destructive re-entry

61  
00:01:54,230 --> 00:01:52,640  
into the earth's atmosphere

62  
00:01:56,310 --> 00:01:54,240  
after release cygnus will deploy the

63  
00:01:57,670 --> 00:01:56,320

kentucky reentry probe experiment which

64

00:01:59,749 --> 00:01:57,680

will test an affordable thermal

65

00:02:01,910 --> 00:01:59,759

protection system to protect spacecraft

66

00:02:03,270 --> 00:02:01,920

and their contents during re-entry

67

00:02:05,429 --> 00:02:03,280

live coverage of the spacecraft's

68

00:02:06,789 --> 00:02:05,439

departure will begin at 10 45 a.m

69

00:02:08,389 --> 00:02:06,799

eastern time

70

00:02:18,550 --> 00:02:08,399

that's all for today on space to ground