



# Space **to** Ground

1  
00:00:06,470 --> 00:00:04,950  
houston station on space to ground

2  
00:00:08,470 --> 00:00:06,480  
welcome to space to grounds i'm chelsea

3  
00:00:10,390 --> 00:00:08,480  
bayarte did you know that a third of

4  
00:00:12,950 --> 00:00:10,400  
american astronauts experience vision

5  
00:00:14,629 --> 00:00:12,960  
changes in space that number may be even

6  
00:00:16,470 --> 00:00:14,639  
bigger for astronauts on long-duration

7  
00:00:18,310 --> 00:00:16,480  
missions the astronauts aboard the

8  
00:00:20,550 --> 00:00:18,320  
station are getting eye exams this week

9  
00:00:22,630 --> 00:00:20,560  
to help researchers understand why so

10  
00:00:24,790 --> 00:00:22,640  
what else is on the to-do list this week

11  
00:00:26,470 --> 00:00:24,800  
tasks include space plumbing and looking

12  
00:00:27,990 --> 00:00:26,480  
out the window

13  
00:00:30,150 --> 00:00:28,000

if your eyes are getting a little puffy

14

00:00:31,910 --> 00:00:30,160

this time of year that may be because of

15

00:00:33,990 --> 00:00:31,920

allergies but if you've seen an

16

00:00:35,830 --> 00:00:34,000

astronaut with a puffy face that could

17

00:00:37,750 --> 00:00:35,840

be because gravity is not there to pull

18

00:00:39,510 --> 00:00:37,760

down their body's fluids vision

19

00:00:41,430 --> 00:00:39,520

researchers have created an imaging

20

00:00:44,150 --> 00:00:41,440

technique used on the space station

21

00:00:45,750 --> 00:00:44,160

called optical coherence tomography it's

22

00:00:47,750 --> 00:00:45,760

basically a way to take a picture of the

23

00:00:49,510 --> 00:00:47,760

back of the eye and the astronauts on

24

00:00:51,510 --> 00:00:49,520

board are using it to examine their eyes

25

00:00:53,430 --> 00:00:51,520

this week this data is important to

26  
00:00:55,189 --> 00:00:53,440  
understand as nasa prepares for

27  
00:00:56,709 --> 00:00:55,199  
long-duration space flights to the moon

28  
00:01:00,150 --> 00:00:56,719  
and one day onto mars through nasa's

29  
00:01:02,389 --> 00:01:00,160  
artemis program nasa has selected axiom

30  
00:01:04,149 --> 00:01:02,399  
space and collins aerospace to develop

31  
00:01:06,230 --> 00:01:04,159  
the next generation of spacesuits to

32  
00:01:07,910 --> 00:01:06,240  
advance spacewalking capabilities to

33  
00:01:09,990 --> 00:01:07,920  
astronauts stepping outside of the space

34  
00:01:11,830 --> 00:01:10,000  
station and one day the moon these

35  
00:01:14,070 --> 00:01:11,840  
spacesuits build on the success of

36  
00:01:15,990 --> 00:01:14,080  
previous suits by increasing mobility

37  
00:01:17,910 --> 00:01:16,000  
new technologies and advanced life

38  
00:01:19,590 --> 00:01:17,920

support capabilities the suits will

39

00:01:21,030 --> 00:01:19,600

arrive aboard the space station after

40

00:01:23,590 --> 00:01:21,040

they complete all of the necessary

41

00:01:26,710 --> 00:01:23,600

environmental testing here on earth

42

00:01:28,630 --> 00:01:26,720

to quote russian cosmonaut oleg artemyev

43

00:01:30,149 --> 00:01:28,640

there's no sweeter sound on the space

44

00:01:31,350 --> 00:01:30,159

station than the sound of a working

45

00:01:33,270 --> 00:01:31,360

toilet

46

00:01:35,350 --> 00:01:33,280

nasa astronaut jessica watkins took to

47

00:01:37,109 --> 00:01:35,360

twitter to talk about space plumbing

48

00:01:39,190 --> 00:01:37,119

explaining that each member of the crew

49

00:01:40,870 --> 00:01:39,200

brings unique skill sets to the table

50

00:01:43,270 --> 00:01:40,880

and sometimes that includes fixing

51  
00:01:45,350 --> 00:01:43,280  
toilets and space watkins is brand new

52  
00:01:47,510 --> 00:01:45,360  
to the twitterverse so give at astro

53  
00:01:49,190 --> 00:01:47,520  
underscore watkins a follow

54  
00:01:51,109 --> 00:01:49,200  
speaking of tweets from space nasa

55  
00:01:52,870 --> 00:01:51,119  
astronaut bob hines shared these photos

56  
00:01:54,870 --> 00:01:52,880  
while looking at our earth from 250

57  
00:01:56,630 --> 00:01:54,880  
miles above he used his aerospace

58  
00:01:58,550 --> 00:01:56,640  
engineering background to explain that

59  
00:02:00,789 --> 00:01:58,560  
as the wind blows past the mountains the

60  
00:02:02,630 --> 00:02:00,799  
viscosity of the air causes eddies or

61  
00:02:04,149 --> 00:02:02,640  
vortices to be shed from alternating

62  
00:02:06,149 --> 00:02:04,159  
sides of the mountain it's the same

63  
00:02:07,670 --> 00:02:06,159

phenomena that makes a flag wave

64

00:02:09,350 --> 00:02:07,680

bob hines may have been looking down at

65

00:02:10,710 --> 00:02:09,360

the earth for those photos but did you

66

00:02:12,229 --> 00:02:10,720

know that you can look up and see the

67

00:02:14,949 --> 00:02:12,239

space station as it flies above your

68

00:02:16,790 --> 00:02:14,959

hometown go to [spottystation.gov](http://spottystation.gov) to find

69

00:02:18,550 --> 00:02:16,800

out what time to look up and if you

70

00:02:20,790 --> 00:02:18,560

capture any photos share them with us

71

00:02:22,229 --> 00:02:20,800

using spot the station

72

00:02:23,589 --> 00:02:22,239

that's space to ground for this week

73

00:02:34,920 --> 00:02:23,599

thanks for watching we'll see you next