



SPACE TO GROUND

1
00:00:05,030 --> 00:00:03,189
houston station on space to ground

2
00:00:06,550 --> 00:00:05,040
welcome to space to ground your weekly

3
00:00:08,310 --> 00:00:06,560
look at what's happening on board the

4
00:00:10,790 --> 00:00:08,320
international space station i'm dan

5
00:00:13,669 --> 00:00:10,800
hewitt traffic picked up in space this

6
00:00:16,550 --> 00:00:13,679
week with two cargo vehicles on the move

7
00:00:19,109 --> 00:00:16,560
first japan's htv-5 was released after

8
00:00:21,029 --> 00:00:19,119
delivering almost five tons of supplies

9
00:00:21,990 --> 00:00:21,039
and spending five weeks attached to the

10
00:00:23,910 --> 00:00:22,000
station

11
00:00:25,830 --> 00:00:23,920
one day after release it re-entered the

12
00:00:27,750 --> 00:00:25,840
earth's atmosphere packed with trash and

13
00:00:29,349 --> 00:00:27,760

disposable items burning up over the

14

00:00:31,589 --> 00:00:29,359

pacific ocean

15

00:00:34,069 --> 00:00:31,599

then on october 1st a russian progress

16

00:00:36,069 --> 00:00:34,079

cargo ship blasted off from kazakhstan

17

00:00:38,229 --> 00:00:36,079

arriving at the station just six hours

18

00:00:41,030 --> 00:00:38,239

later it's loaded up with more than

19

00:00:43,830 --> 00:00:41,040

three tons of food fuel and hardware for

20

00:00:46,229 --> 00:00:43,840

the expedition 45 crew vehicle will stay

21

00:00:48,869 --> 00:00:46,239

docked until early december

22

00:00:51,029 --> 00:00:48,879

there's flowing water on mars and the

23

00:00:52,709 --> 00:00:51,039

station is testing the technology that

24

00:00:54,709 --> 00:00:52,719

could lead to driving rovers through

25

00:00:56,950 --> 00:00:54,719

those martian streams

26

00:00:59,430 --> 00:00:56,960

this week astronaut camilla yui used a

27

00:01:00,869 --> 00:00:59,440

controller in space to command a rover

28

00:01:03,430 --> 00:01:00,879

on the ground in germany for the

29

00:01:05,270 --> 00:01:03,440

european meteoron experiment this

30

00:01:07,190 --> 00:01:05,280

capability could one day allow

31

00:01:09,750 --> 00:01:07,200

astronauts in orbit around the red

32

00:01:11,910 --> 00:01:09,760

planet to control robotic explorers on

33

00:01:13,910 --> 00:01:11,920

the surface below cutting out the big

34

00:01:16,469 --> 00:01:13,920

time delay experience when commanding

35

00:01:18,950 --> 00:01:16,479

from earth this technology could also be

36

00:01:22,070 --> 00:01:18,960

helpful on earth for driving robots into

37

00:01:23,830 --> 00:01:22,080

environments too dangerous for humans

38

00:01:25,910 --> 00:01:23,840

this week we have a question for

39

00:01:28,149 --> 00:01:25,920

astronaut chell lindgren and it comes

40

00:01:29,990 --> 00:01:28,159

from actor mackenzie davis who plays

41

00:01:31,109 --> 00:01:30,000

flight controller mindy park in the

42

00:01:32,789 --> 00:01:31,119

martian

43

00:01:34,950 --> 00:01:32,799

right now you're only a split second

44

00:01:36,069 --> 00:01:34,960

call away from people on earth how much

45

00:01:37,830 --> 00:01:36,079

harder do you think it will be when

46

00:01:39,670 --> 00:01:37,840

astronauts have to wait up to 40 minutes

47

00:01:41,510 --> 00:01:39,680

for a response yeah i think it's going

48

00:01:42,630 --> 00:01:41,520

to be a little more difficult when you

49

00:01:44,870 --> 00:01:42,640

have to wait

50

00:01:48,469 --> 00:01:44,880

40 minutes for kind of uh

51

00:01:50,550 --> 00:01:48,479

that return reply but i think that

52

00:01:51,350 --> 00:01:50,560

you know humans are very adaptable and i

53

00:01:55,429 --> 00:01:51,360

think

54

00:01:56,789 --> 00:01:55,439

on that journey that uh an email or a

55

00:01:58,709 --> 00:01:56,799

voice message

56

00:02:00,789 --> 00:01:58,719

even though it takes 40 minutes is

57

00:02:01,990 --> 00:02:00,799

going to be treasured all the more

58

00:02:03,670 --> 00:02:02,000

because it still represents that

59

00:02:05,590 --> 00:02:03,680

communication

60

00:02:07,590 --> 00:02:05,600

that contact that connection with the

61

00:02:09,510 --> 00:02:07,600

friends and family back on earth that's

62

00:02:11,589 --> 00:02:09,520

it for this week keep sending us your