



SPACE TO GROUND

1
00:00:05,190 --> 00:00:02,950
houston station on space to ground

2
00:00:06,789 --> 00:00:05,200
meet nasa's newest record-breaking

3
00:00:08,710 --> 00:00:06,799
astronaut

4
00:00:10,790 --> 00:00:08,720
welcome to space to ground i'm dan

5
00:00:13,030 --> 00:00:10,800
hewitt jeff williams just broke the

6
00:00:14,470 --> 00:00:13,040
record for most time in space for an

7
00:00:16,710 --> 00:00:14,480
american

8
00:00:20,390 --> 00:00:16,720
as of august 24th williams has spent

9
00:00:22,310 --> 00:00:20,400
over 520 days in space in his lifetime

10
00:00:24,150 --> 00:00:22,320
surpassing the record set by one-year

11
00:00:25,349 --> 00:00:24,160
crew member scott kelly just a few

12
00:00:27,429 --> 00:00:25,359
months ago

13
00:00:30,390 --> 00:00:27,439

williams's career started on shuttle

14

00:00:33,190 --> 00:00:30,400

atlantis during sts 101 back in the year

15

00:00:35,190 --> 00:00:33,200

2000. he then rode on three russian

16

00:00:37,830 --> 00:00:35,200

soyuz vehicles to the station as a

17

00:00:41,990 --> 00:00:37,840

long-duration crew member during three

18

00:00:42,869 --> 00:00:42,000

six-month stints in 2006 2009 and right

19

00:00:44,709 --> 00:00:42,879

now

20

00:00:48,150 --> 00:00:44,719

by the time he returns in early

21

00:00:50,869 --> 00:00:48,160

september he'll have accumulated 534

22

00:00:53,510 --> 00:00:50,879

days in space setting a high bar for

23

00:00:55,670 --> 00:00:53,520

future nasa astronauts

24

00:00:59,029 --> 00:00:55,680

after over a month attached to station

25

00:01:01,270 --> 00:00:59,039

it's time for spacex's dragon to depart

26
00:01:03,670 --> 00:01:01,280
the crew closed the hatch to dragon on

27
00:01:05,750 --> 00:01:03,680
thursday after packing it with about 3

28
00:01:07,670 --> 00:01:05,760
000 pounds of cargo

29
00:01:10,469 --> 00:01:07,680
the spacecraft which launched back on

30
00:01:12,390 --> 00:01:10,479
july 18th delivered almost 5 thousand

31
00:01:14,230 --> 00:01:12,400
pounds of supplies to the station

32
00:01:16,310 --> 00:01:14,240
including the first international

33
00:01:18,789 --> 00:01:16,320
docking adapter which was installed

34
00:01:20,870 --> 00:01:18,799
during a spacewalk last week

35
00:01:23,510 --> 00:01:20,880
the only resupply craft capable of

36
00:01:25,830 --> 00:01:23,520
re-entry dragon is returning a variety

37
00:01:27,910 --> 00:01:25,840
of science samples and experiments

38
00:01:29,990 --> 00:01:27,920

including heart cells that were cultured

39

00:01:32,789 --> 00:01:30,000

aboard the space station to study how

40

00:01:35,109 --> 00:01:32,799

microgravity changes the human heart

41

00:01:36,789 --> 00:01:35,119

this week twitter user the tracer wants

42

00:01:39,350 --> 00:01:36,799

to know where the thrusters are located

43

00:01:41,190 --> 00:01:39,360

on the iss to find out we need to head

44

00:01:42,950 --> 00:01:41,200

over to the russian segment of the space

45

00:01:45,350 --> 00:01:42,960

station

46

00:01:48,870 --> 00:01:45,360

the russian service module also known as

47

00:01:51,109 --> 00:01:48,880

zvezda has 32 attitude control engines

48

00:01:53,350 --> 00:01:51,119

they're split up into two groups of 16

49

00:01:56,550 --> 00:01:53,360

engines each able to control the

50

00:01:58,469 --> 00:01:56,560

attitude and altitude of the station the

51
00:02:00,230 --> 00:01:58,479
primary method for boosting the station

52
00:02:02,469 --> 00:02:00,240
though is using the russian progress

53
00:02:05,350 --> 00:02:02,479
resupply vehicle which when docked

54
00:02:08,150 --> 00:02:05,360
provides another 24 engines eight of

55
00:02:10,630 --> 00:02:08,160
those can be used for reboost regularly

56
00:02:12,470 --> 00:02:10,640
raising the station's altitude or firing

57
00:02:14,390 --> 00:02:12,480
to avoid space junk

58
00:02:16,470 --> 00:02:14,400
keep sending us your questions using the