SPACE TO GROUND

1
00:00:04,950 --> 00:00:02,950
houston station on space to ground

2
00:00:06,630 --> 00:00:04,960
welcome to space to ground your weekly

3
00:00:08,390 --> 00:00:06,640
look at what's happening on board the

4
00:00:10,709 --> 00:00:08,400
international space station i'm dan

5
00:00:12,390 --> 00:00:10,719
hewitt the first spacewalk of the year

6
00:00:13,910 --> 00:00:12,400
is in the books and ended a bit

7
00:00:16,470 --> 00:00:13,920
unexpectedly

8
00:00:18,470 --> 00:00:16,480
nasa's tim copra and esa's tim peake

9
00:00:20,710 --> 00:00:18,480
worked together to swap out a voltage

10
00:00:22,870 --> 00:00:20,720
regulator that failed last year with a

11
00:00:24,470 --> 00:00:22,880
spare restoring one of the station's

12
00:00:26,710 --> 00:00:24,480
eight power channels

13
00:00:29,109 --> 00:00:26,720

shortly after that however the call came

14
00:00:31,349 --> 00:00:29,119
to end the spacewalk early when a small

15
00:00:33,590 --> 00:00:31,359
water bubble appeared in copper's helmet

16
00:00:36,310 --> 00:00:33,600
the crew was never in any danger and

17
00:00:38,389 --> 00:00:36,320
they made their way safely back inside

18
00:00:40,069 --> 00:00:38,399
scott kelly and mikhail kornienko got

19
00:00:41,830 --> 00:00:40,079
suited up in a different way as they

20
00:00:44,470 --> 00:00:41,840
continued one of the key research

21
00:00:46,549 --> 00:00:44,480
studies for the one year mission for the

22
00:00:48,790 --> 00:00:46,559
third time the duo strapped into the

23
00:00:49,910 --> 00:00:48,800
russian chibis suit for the fluid shifts

24
00:00:51,830 --> 00:00:49,920
experiment

25
00:00:53,750 --> 00:00:51,840
scientists are still trying to pinpoint

26
00:00:55,990 --> 00:00:53,760
why some space fliers have vision

27
00:00:58,069 --> 00:00:56,000
problems while in microgravity something

28
00:01:00,069 --> 00:00:58,079
they suspect could come from increased

29
00:01:02,310 --> 00:01:00,079
fluid pressure in the head

30
00:01:04,469 --> 00:01:02,320
kelly and kornienko took ultrasounds of

31
00:01:06,950 --> 00:01:04,479
their eyes while wearing chivas which

32
00:01:09,670 --> 00:01:06,960
draws fluid back down to the legs as

33
00:01:11,750 --> 00:01:09,680
well as doing a battery of eye exams

34
00:01:14,149 --> 00:01:11,760
results from this study could shed light

35
00:01:16,310 --> 00:01:14,159
on why some astronauts experience vision

36
00:01:19,030 --> 00:01:16,320
problems as well as give scientists

37
00:01:20,870 --> 00:01:19,040
ideas for countering the effects

38
00:01:22,870 --> 00:01:20,880

this week's twitter question comes from

39
00:01:25,270 --> 00:01:22,880
andrew who wants to know if during a

40
00:01:27,510 --> 00:01:25,280
spacewalk the suit balloons out more

41
00:01:29,590 --> 00:01:27,520
than it does during underwater training

42
00:01:30,789 --> 00:01:29,600
well as it turns out the opposite is

43
00:01:32,550 --> 00:01:30,799
true

44
00:01:34,230 --> 00:01:32,560
both suits are pressurized so the

45
00:01:37,749 --> 00:01:34,240
difference between the inside and

46
00:01:39,590 --> 00:01:37,759
outside of the suit is 4.3 psi

47
00:01:41,670 --> 00:01:39,600
the suits in the pool actually balloon

48
00:01:44,149 --> 00:01:41,680
out a bit more though since they've been

49
00:01:46,550 --> 00:01:44,159
used so many times and are more worn out

50
00:01:48,310 --> 00:01:46,560
but astronauts don't really notice this

51
00:01:50,469 --> 00:01:48,320
the biggest difference astronauts

52
00:01:52,950 --> 00:01:50,479
experience between the two environments

53
00:01:55,030 --> 00:01:52,960
is starting and stopping it's much

54
00:01:57,190 --> 00:01:55,040
easier to start motion in space with no

55
00:01:59,429 --> 00:01:57,200
resistance but harder to stop with

56
00:02:01,429 --> 00:01:59,439
nothing to slow you down

57
00:02:03,910 --> 00:02:01,439
keep sending us your questions using the