



SPACE TO GROUND

1
00:00:04,789 --> 00:00:02,950
houston station on space to ground

2
00:00:06,470 --> 00:00:04,799
welcome to space to ground your weekly

3
00:00:08,310 --> 00:00:06,480
look at what's happening on board the

4
00:00:11,190 --> 00:00:08,320
international space station i'm dan

5
00:00:13,030 --> 00:00:11,200
hewitt 2015 is drawing to an end and

6
00:00:14,070 --> 00:00:13,040
what a year it's been for science and

7
00:00:17,189 --> 00:00:14,080
space

8
00:00:20,150 --> 00:00:17,199
crew members spent a whopping 1900 hours

9
00:00:22,710 --> 00:00:20,160
this year working on 450 experiments on

10
00:00:24,630 --> 00:00:22,720
the orbital laboratory highlights how

11
00:00:26,230 --> 00:00:24,640
about growing and eating lettuce for the

12
00:00:28,470 --> 00:00:26,240
first time in space is part of the

13
00:00:30,390 --> 00:00:28,480

veggie experiment something that not

14

00:00:32,709 --> 00:00:30,400

only brings a welcome taste of home to

15

00:00:35,270 --> 00:00:32,719

station cruise but will be a vital

16

00:00:37,430 --> 00:00:35,280

technology on a future journey to mars

17

00:00:39,430 --> 00:00:37,440

this is also a hallmark year for human

18

00:00:41,430 --> 00:00:39,440

research in space with several

19

00:00:42,869 --> 00:00:41,440

investigations focused on the first

20

00:00:45,029 --> 00:00:42,879

one-year mission

21

00:00:47,430 --> 00:00:45,039

nasa's scott kelly and rose cosmos

22

00:00:49,110 --> 00:00:47,440

mikhail kornienko are at the center of a

23

00:00:51,350 --> 00:00:49,120

number of experiments pushing the

24

00:00:53,590 --> 00:00:51,360

boundaries on what we know about how

25

00:00:55,029 --> 00:00:53,600

humans live in space for extreme periods

26

00:00:56,549 --> 00:00:55,039

of time

27

00:00:58,950 --> 00:00:56,559

and to keep everything running there

28

00:00:59,910 --> 00:00:58,960

were plenty of launches spacewalks and

29

00:01:02,150 --> 00:00:59,920

more

30

00:01:05,350 --> 00:01:02,160

eight cargo vehicles carried supplies to

31

00:01:08,550 --> 00:01:05,360

the station in 2015 including two spacex

32

00:01:11,910 --> 00:01:08,560

dragons one orbital atk cygnus four

33

00:01:14,230 --> 00:01:11,920

russian progresses and a japanese htv

34

00:01:16,950 --> 00:01:14,240

four soyuz crafts launched crews to the

35

00:01:19,030 --> 00:01:16,960

station including the first kozak danish

36

00:01:21,190 --> 00:01:19,040

and british crew members

37

00:01:22,950 --> 00:01:21,200

seven spacewalks also took place

38

00:01:25,670 --> 00:01:22,960

upgrading the station and performing

39

00:01:27,749 --> 00:01:25,680

repairs to keep it in tip-top shape and

40

00:01:30,710 --> 00:01:27,759

in november the space station celebrated

41

00:01:33,190 --> 00:01:30,720

15 non-stop years of humans living and

42

00:01:35,830 --> 00:01:33,200

working off the earth for the earth

43

00:01:38,390 --> 00:01:35,840

as exciting as 2015 was for the station

44

00:01:41,429 --> 00:01:38,400

2016 is already shaping up to be an

45

00:01:43,630 --> 00:01:41,439

extraordinary year the one-year crew is

46

00:01:46,789 --> 00:01:43,640

set to return march first wrapping up

47

00:01:49,910 --> 00:01:46,799

340 days in space the longest duration

48

00:01:51,830 --> 00:01:49,920

mission ever in iss history and some

49

00:01:54,389 --> 00:01:51,840

major science payloads plan on making

50

00:01:57,030 --> 00:01:54,399

the station their home in 2016. the

51
00:01:59,670 --> 00:01:57,040
bigelow expandable activity module or

52
00:02:01,350 --> 00:01:59,680
beam is a lightweight inflatable habitat

53
00:02:03,190 --> 00:02:01,360
that will demonstrate a new way to

54
00:02:05,109 --> 00:02:03,200
provide a comfortable area for

55
00:02:07,270 --> 00:02:05,119
astronauts to live and work an

56
00:02:08,630 --> 00:02:07,280
innovative technology to help drive

57
00:02:10,469 --> 00:02:08,640
exploration

58
00:02:13,030 --> 00:02:10,479
and to keep an eye on the earth below

59
00:02:15,750 --> 00:02:13,040
the sage 3 device will fly next year to

60
00:02:17,990 --> 00:02:15,760
monitor aerosols the ozone layer and

61
00:02:20,229 --> 00:02:18,000
other gases vital for improved

62
00:02:22,070 --> 00:02:20,239
understanding of climate change

63
00:02:23,589 --> 00:02:22,080

and so we'll close this year with a

64

00:02:25,910 --> 00:02:23,599

special message from the crew for the

65

00:02:28,630 --> 00:02:25,920

holidays keep sending those questions in

66

00:02:30,390 --> 00:02:28,640

2016 using the hashtag space to ground

67

00:02:32,070 --> 00:02:30,400

we'll see you next year

68

00:02:34,150 --> 00:02:32,080

christmas is traditionally a time for

69

00:02:35,509 --> 00:02:34,160

friends and families to get together and

70

00:02:37,430 --> 00:02:35,519

although we can't be with our friends

71

00:02:40,070 --> 00:02:37,440

and families this year we'll be orbiting

72

00:02:41,750 --> 00:02:40,080

the earth 16 times on christmas day and

73

00:02:44,390 --> 00:02:41,760

sending all our good wishes to everybody

74

00:02:47,030 --> 00:02:44,400

back down on our beautiful planet earth

75

00:02:48,550 --> 00:02:47,040

merry christmas happy holidays and happy

