



Space**to**Ground

1
00:00:07,269 --> 00:00:05,190
houston station on space to ground

2
00:00:09,589 --> 00:00:07,279
welcome to space to ground i'm kathryn

3
00:00:11,509 --> 00:00:09,599
clayton this week we lead with science

4
00:00:12,789 --> 00:00:11,519
and learn how gravity impacts our immune

5
00:00:15,110 --> 00:00:12,799
system

6
00:00:17,109 --> 00:00:15,120
the celestial immunity investigation

7
00:00:19,349 --> 00:00:17,119
evaluates the effects of gravity on

8
00:00:21,349 --> 00:00:19,359
functional immune response nasa

9
00:00:23,029 --> 00:00:21,359
astronauts mark vandehei and megan

10
00:00:24,630 --> 00:00:23,039
macarthur performed activities to

11
00:00:27,189 --> 00:00:24,640
prepare for the investigation's

12
00:00:29,589 --> 00:00:27,199
three-week run the investigation uses

13
00:00:31,669 --> 00:00:29,599

lymphocytes a type of white blood cell

14

00:00:33,910 --> 00:00:31,679

and expands the length of observation

15

00:00:36,389 --> 00:00:33,920

analyzes a wider array of activated

16

00:00:39,030 --> 00:00:36,399

immune pathways and examines the role of

17

00:00:41,590 --> 00:00:39,040

age by evaluating cells from elderly and

18

00:00:43,670 --> 00:00:41,600

younger donors on earth gravity

19

00:00:45,510 --> 00:00:43,680

convection and buoyancy interfere with

20

00:00:47,750 --> 00:00:45,520

cell behavior in laboratory-based

21

00:00:49,990 --> 00:00:47,760

studies but microgravity eliminates

22

00:00:52,310 --> 00:00:50,000

these factors results could support

23

00:00:54,389 --> 00:00:52,320

development of new vaccines and drugs to

24

00:00:55,910 --> 00:00:54,399

prevent and treat existing and emerging

25

00:00:57,750 --> 00:00:55,920

human diseases

26

00:01:00,229 --> 00:00:57,760

just ahead of the atlantic hurricane

27

00:01:02,950 --> 00:01:00,239

season the iss crew met with weather

28

00:01:04,950 --> 00:01:02,960

nation tv to discuss earth observations

29

00:01:06,870 --> 00:01:04,960

from the space station

30

00:01:08,070 --> 00:01:06,880

meredith on my last flight i got to see

31

00:01:09,510 --> 00:01:08,080

a hurricane

32

00:01:11,429 --> 00:01:09,520

of course that was devastating on the

33

00:01:12,550 --> 00:01:11,439

ground up here it's hard to believe that

34

00:01:14,550 --> 00:01:12,560

something that looks that beautiful is

35

00:01:17,590 --> 00:01:14,560

causing that much damage you can look

36

00:01:19,429 --> 00:01:17,600

straight down into the eye of the of the

37

00:01:21,350 --> 00:01:19,439

storm which is hugely impressive you see

38

00:01:22,950 --> 00:01:21,360

those massive walls and then you look

39

00:01:24,390 --> 00:01:22,960

straight down from the space station

40

00:01:26,710 --> 00:01:24,400

with our biggest

41

00:01:28,469 --> 00:01:26,720

telephoto lens that's one of the most

42

00:01:30,390 --> 00:01:28,479

impressive pictures i've ever seen taken

43

00:01:32,469 --> 00:01:30,400

from the space station

44

00:01:34,390 --> 00:01:32,479

nasa is a buzz about news on two

45

00:01:37,109 --> 00:01:34,400

exciting missions

46

00:01:39,830 --> 00:01:37,119

the boeing starliner's uncrewed orbital

47

00:01:42,469 --> 00:01:39,840

flight test 2 announced a new target

48

00:01:43,910 --> 00:01:42,479

launch date for friday july 30. this

49

00:01:46,069 --> 00:01:43,920

uncrewed flight test to the

50

00:01:48,230 --> 00:01:46,079

international space station is a key

51
00:01:51,109 --> 00:01:48,240
milestone towards the first starliner

52
00:01:53,030 --> 00:01:51,119
crude mission expected later this year

53
00:01:55,429 --> 00:01:53,040
this week nasa announced an agreement

54
00:01:57,350 --> 00:01:55,439
with axiom space for the first private

55
00:01:59,830 --> 00:01:57,360
astronaut mission to the space station

56
00:02:01,670 --> 00:01:59,840
expected to launch january next year

57
00:02:03,190 --> 00:02:01,680
this mission marks the expansion of

58
00:02:05,510 --> 00:02:03,200
human space exploration to

59
00:02:07,749 --> 00:02:05,520
non-traditional users as part of nasa's

60
00:02:09,350 --> 00:02:07,759
efforts to grow a low earth orbit

61
00:02:11,270 --> 00:02:09,360
economy

62
00:02:12,869 --> 00:02:11,280
that's space to ground for this week