SpacetoGround

1
00:00:05,950 --> 00:00:02,790
foreign

2
00:00:09,169 --> 00:00:05,960
[Music]

3
00:00:10,850 --> 00:00:09,179
I'm Kayla LaFrance the crew aboard the

4
00:00:13,610 --> 00:00:10,860
space station spent the week working

5
00:00:17,330 --> 00:00:13,620
hard on science payloads after receiving

6
00:00:19,010 --> 00:00:17,340
a special call last Friday the crew held

7
00:00:21,470 --> 00:00:19,020
a conference call with the vice

8
00:00:24,050 --> 00:00:21,480
president of the United States Kamala

9
00:00:26,029 --> 00:00:24,060
Harris the vice president who was on

10
00:00:28,429 --> 00:00:26,039
hand at Johnson Space Center last week

11
00:00:30,710 --> 00:00:28,439
to chair the National Space council

12
00:00:32,569 --> 00:00:30,720
meeting dropped by Mission Control to

13
00:00:35,389 --> 00:00:32,579

speak with NASA astronauts Chell

14
00:00:38,450 --> 00:00:35,399
Lindgren Bob Heinz and Jessica Watkins

15
00:00:40,850 --> 00:00:38,460
tell us what you are learning on the

16
00:00:43,910 --> 00:00:40,860
space station that is helping us be

17
00:00:46,369 --> 00:00:43,920
smarter around how we take care of Earth

18
00:00:48,110 --> 00:00:46,379
yes we are are honored and privileged to

19
00:00:49,310 --> 00:00:48,120
be able to use the International Space

20
00:00:52,069 --> 00:00:49,320
Station

21
00:00:54,709 --> 00:00:52,079
um as a test bed and as a laboratory to

22
00:00:57,229 --> 00:00:54,719
be able to learn lessons that we can

23
00:01:00,290 --> 00:00:57,239
apply to Earth so things like learning

24
00:01:02,810 --> 00:01:00,300
how to grow plants without soil and

25
00:01:05,030 --> 00:01:02,820
being able to use that back on Earth to

26
00:01:07,250 --> 00:01:05,040
help with food security learning about

27
00:01:09,410 --> 00:01:07,260
how immune cells age while we're up here

28
00:01:11,870 --> 00:01:09,420
and think about how we can help with

29
00:01:13,670 --> 00:01:11,880
immune cell aging back on Earth there's

30
00:01:16,250 --> 00:01:13,680
so many different aspects of what we do

31
00:01:17,890 --> 00:01:16,260
up here that can be applied to making

32
00:01:20,690 --> 00:01:17,900
Earth a better place

33
00:01:22,910 --> 00:01:20,700
European Space Agency astronaut Samantha

34
00:01:25,070 --> 00:01:22,920
Christopher Eddie kicked off the Foams

35
00:01:27,770 --> 00:01:25,080
and emulsions investigation aboard the

36
00:01:30,530 --> 00:01:27,780
orbine laboratory this week if you've

37
00:01:33,289 --> 00:01:30,540
used shampoos or salad dressings you've

38
00:01:35,330 --> 00:01:33,299

encountered Foams and emulsions aside

39
00:01:37,789 --> 00:01:35,340
from making up many household items

40
00:01:40,550 --> 00:01:37,799
these droplets and Bubbles suspended in

41
00:01:42,350 --> 00:01:40,560
liquids Foams and emulsions are also

42
00:01:44,170 --> 00:01:42,360
important to processes that remove

43
00:01:46,969 --> 00:01:44,180
pollutants from the environment

44
00:01:49,069 --> 00:01:46,979
microgravity eliminates factors that

45
00:01:51,710 --> 00:01:49,079
complicate Research into Foams and

46
00:01:53,749 --> 00:01:51,720
emulsions on Earth what we learn could

47
00:01:55,789 --> 00:01:53,759
contribute to more effective and

48
00:01:57,710 --> 00:01:55,799
efficient use of these bubbly and

49
00:02:00,350 --> 00:01:57,720
non-mixable liquids

50
00:02:02,870 --> 00:02:00,360
and finally we take you to the coldest

51
00:02:05,270 --> 00:02:02,880
known spot in the universe

52
00:02:07,490 --> 00:02:05,280
the cold atom laboratory is a facility

53
00:02:10,430 --> 00:02:07,500
on the International Space Station that

54
00:02:13,190 --> 00:02:10,440
allows researchers to dive into amazing

55
00:02:15,890 --> 00:02:13,200
Atomic and Quantum discoveries by

56
00:02:19,070 --> 00:02:15,900
producing clouds of atoms a fraction of

57
00:02:21,830 --> 00:02:19,080
a degree above absolute zero this is

58
00:02:25,550 --> 00:02:21,840
only possible due to spaces microgravity

59
00:02:28,010 --> 00:02:25,560
environment launched in May of 2018 the

60
00:02:30,650 --> 00:02:28,020
payload has already shown revolutionary

61
00:02:32,990 --> 00:02:30,660
breakthroughs for Quantum research in

62
00:02:35,690 --> 00:02:33,000
its four years of operating on the space

63
00:02:37,550 --> 00:02:35,700

laboratory you can learn more about this

64
00:02:40,790 --> 00:02:37,560
one-of-a-kind research on the latest

65
00:02:42,949 --> 00:02:40,800
edition of Houston we have a podcast Dr

66
00:02:44,690 --> 00:02:42,959
Jason Williams from NASA's jet

67
00:02:47,330 --> 00:02:44,700
propulsion laboratory in Pasadena

68
00:02:49,670 --> 00:02:47,340
California and Dr Nathan lumlad a

69
00:02:51,770 --> 00:02:49,680
professor of physics at Bates College in

70
00:02:54,650 --> 00:02:51,780
Lewiston Maine will take you on a

71
00:02:57,350 --> 00:02:54,660
journey to the subatomic you can get the

72
00:02:59,509 --> 00:02:57,360
latest news about the cold atom lab and

73
00:03:03,410 --> 00:02:59,519
other research and science happenings on

74
00:03:05,990 --> 00:03:03,420
the ISS by following at ISS underscore

75
00:03:07,670 --> 00:03:06,000
Research on Twitter that's space to

76
00:03:13,060 --> 00:03:07,680
ground for this week thanks for watching

77
00:03:13,070 --> 00:03:20,589
[Music]