# SpacetoGround

1
00:00:06,869 --> 00:00:05,030
houston station on space to ground

2
00:00:09,350 --> 00:00:06,879
welcome to space to ground i'm sandra

3
00:00:11,509 --> 00:00:09,360
jones this week a cargo ship packed with

4
00:00:13,990 --> 00:00:11,519
food fuel and supplies arrived to the

5
00:00:16,790 --> 00:00:14,000
international space station and science

6
00:00:18,710 --> 00:00:16,800
research on flames and space continues

7
00:00:21,429 --> 00:00:18,720
we have engine ignition

8
00:00:24,230 --> 00:00:21,439
on february 19th the uncrewed northrop

9
00:00:27,029 --> 00:00:24,240
grumman crs-17 cygnus cargo craft

10
00:00:29,349 --> 00:00:27,039
blasted off from launch pad 0a at the

11
00:00:31,990 --> 00:00:29,359
wallops flight facility in virginia

12
00:00:35,270 --> 00:00:32,000
carrying 8 300 pounds of science

13
00:00:37,910 --> 00:00:35,280

investigations fresh foods and cargo

14
00:00:39,670 --> 00:00:37,920
the cygnus named the ss piers sellers

15
00:00:41,910 --> 00:00:39,680
after the late nasa astronaut and

16
00:00:43,750 --> 00:00:41,920
climate scientists arrived to the space

17
00:00:45,910 --> 00:00:43,760
station two days later

18
00:00:48,389 --> 00:00:45,920
nasa astronaut raja chari used the

19
00:00:50,310 --> 00:00:48,399
canada arm 2 to capture cygnus and it

20
00:00:51,990 --> 00:00:50,320
was then installed to the unity module

21
00:00:54,069 --> 00:00:52,000
of the space station

22
00:00:56,709 --> 00:00:54,079
congratulations to the mcc

23
00:00:58,549 --> 00:00:56,719
h and dulles team into northrop grumman

24
00:01:01,029 --> 00:00:58,559
and welcome aboard again to pierce

25
00:01:02,950 --> 00:01:01,039
sellers he worked at goddard and climate

26
00:01:05,030 --> 00:01:02,960
science and it's a daily reminder to us

27
00:01:06,550 --> 00:01:05,040
with the experiments on board to help

28
00:01:08,149 --> 00:01:06,560
with the climate of the earth in his

29
00:01:09,350 --> 00:01:08,159
name and legacy and we're happy to be a

30
00:01:11,030 --> 00:01:09,360
part of that

31
00:01:13,350 --> 00:01:11,040
as one important flame study

32
00:01:15,350 --> 00:01:13,360
investigation reaches its end a new one

33
00:01:18,310 --> 00:01:15,360
is about to begin

34
00:01:21,030 --> 00:01:18,320
since 2017 the advanced combustion via

35
00:01:23,270 --> 00:01:21,040
microgravity experiments or acme

36
00:01:26,710 --> 00:01:23,280
conducted six studies in which seven

37
00:01:29,270 --> 00:01:26,720
gaseous fuels were burned and over 1 500

38
00:01:31,670 --> 00:01:29,280

flames were ignited and studied the goal

39
00:01:33,830 --> 00:01:31,680
of acme was to study flammability

40
00:01:35,990 --> 00:01:33,840
improve engine efficiency and reduce

41
00:01:37,910 --> 00:01:36,000
pollutant emission in combustion as well

42
00:01:39,670 --> 00:01:37,920
as to better understand how to prevent

43
00:01:41,670 --> 00:01:39,680
fires in spacecraft

44
00:01:44,469 --> 00:01:41,680
now the solid fuel ignition and

45
00:01:46,710 --> 00:01:44,479
extinction facility or sophie builds on

46
00:01:48,870 --> 00:01:46,720
the work of acme with a new series of

47
00:01:51,109 --> 00:01:48,880
investigations studying flames in new

48
00:01:53,830 --> 00:01:51,119
ways such as material ignition and

49
00:01:56,230 --> 00:01:53,840
suppression launched aboard

50
00:01:58,709 --> 00:01:56,240
sophie will help nasa select materials

51
00:02:01,429 --> 00:01:58,719
and designs for spacesuits cabins and

52
00:02:03,510 --> 00:02:01,439
habitats the experiment will also help

53
00:02:07,030 --> 00:02:03,520
nasa identify the best ways to put out

54
00:02:09,589 --> 00:02:07,040
fires or smolder materials in space

55
00:02:11,910 --> 00:02:09,599
skin aging may be inevitable but the

56
00:02:14,710 --> 00:02:11,920
unique microgravity environment of space

57
00:02:16,550 --> 00:02:14,720
may accelerate the rate of skin aging

58
00:02:18,550 --> 00:02:16,560
a newly arrived study seeks to

59
00:02:21,430 --> 00:02:18,560
investigate the underlying molecular

60
00:02:23,670 --> 00:02:21,440
mechanisms that drive skin deterioration

61
00:02:26,630 --> 00:02:23,680
the colgate skin aging investigation

62
00:02:28,949 --> 00:02:26,640
arrived on ng17 and consists of a model

63
00:02:31,589 --> 00:02:28,959

that uses human skin cells on a porous

64
00:02:34,229 --> 00:02:31,599
membrane to mimic the 3d organization of

65
00:02:36,390 --> 00:02:34,239
skin tissue this study evaluates the

66
00:02:38,949 --> 00:02:36,400
cellular and molecular alterations

67
00:02:41,110 --> 00:02:38,959
associated with growth in microgravity

68
00:02:42,790 --> 00:02:41,120
compared to the normal aging process on

69
00:02:44,630 --> 00:02:42,800
earth the results from this

70
00:02:47,030 --> 00:02:44,640
investigation could help create and

71
00:02:49,270 --> 00:02:47,040
validate engineered tissue to protect

72
00:02:50,790 --> 00:02:49,280
aging skin heal from wounds and combat

73
00:02:52,550 --> 00:02:50,800
infection

74
00:02:54,070 --> 00:02:52,560
and that's space to ground for this week

75
00:03:03,650 --> 00:02:54,080
thanks so much for watching we'll see