



Space**to**Ground

1
00:00:00,179 --> 00:00:04,970
foreign

2
00:00:09,290 --> 00:00:07,070
welcome to space to ground I'm Jaden

3
00:00:10,669 --> 00:00:09,300
Jennings Northrop Grumman has named the

4
00:00:13,089 --> 00:00:10,679
next cygnus mission to the International

5
00:00:15,829 --> 00:00:13,099
Space Station in honor of Dr Sally Ride

6
00:00:17,570 --> 00:00:15,839
astronaut physicist advocate for

7
00:00:20,029 --> 00:00:17,580
diversity and Science and the first

8
00:00:22,490 --> 00:00:20,039
American woman to fly into space

9
00:00:24,710 --> 00:00:22,500
the ng-18 mission is scheduled to launch

10
00:00:26,570 --> 00:00:24,720
on Sunday November 6 from the Wallops

11
00:00:28,790 --> 00:00:26,580
Flight Facility in Virginia

12
00:00:31,189 --> 00:00:28,800
the spacecraft will deliver more than 8

13
00:00:33,650 --> 00:00:31,199

200 pounds of cargo for the station's

14

00:00:36,410 --> 00:00:33,660

Expedition 68 crew as well as several

15

00:00:38,630 --> 00:00:36,420

key science experiments on board cygnus

16

00:00:40,310 --> 00:00:38,640

the oboe space investigation will study

17

00:00:42,590 --> 00:00:40,320

possible changes in ovarian cell

18

00:00:44,510 --> 00:00:42,600

development and microgravity the study

19

00:00:46,850 --> 00:00:44,520

will use bovine cell cultures in order

20

00:00:48,830 --> 00:00:46,860

to understand those changes as we work

21

00:00:50,990 --> 00:00:48,840

toward a permanent human presence on the

22

00:00:52,670 --> 00:00:51,000

moon This research seeks to identify

23

00:00:54,950 --> 00:00:52,680

possible treatments to protect

24

00:00:57,170 --> 00:00:54,960

reproductive Health off the planet and

25

00:00:59,389 --> 00:00:57,180

could also improve or restore fertility

26

00:01:01,610 --> 00:00:59,399

in people here on Earth

27

00:01:03,470 --> 00:01:01,620

another study that will fly on cygnus

28

00:01:05,990 --> 00:01:03,480

will look for solutions to prevent a

29

00:01:08,270 --> 00:01:06,000

disastrous event after wildfires

30

00:01:10,670 --> 00:01:08,280

the effects of wildfires are devastating

31

00:01:13,250 --> 00:01:10,680

causing loss of property and loss of

32

00:01:15,770 --> 00:01:13,260

lives even more damage can happen months

33

00:01:18,230 --> 00:01:15,780

after the event when a wildfire Burns

34

00:01:20,749 --> 00:01:18,240

plants combusted chemicals create a thin

35

00:01:22,789 --> 00:01:20,759

layer of soil that repels rainwater rain

36

00:01:24,830 --> 00:01:22,799

then erodes the soil which can lead to

37

00:01:27,050 --> 00:01:24,840

catastrophic mud flows that carry heavy

38

00:01:29,570 --> 00:01:27,060

Boulders and debris downhill causing

39

00:01:31,670 --> 00:01:29,580

significant damage the post Wildfire

40

00:01:33,950 --> 00:01:31,680

mudflow microstructure investigation

41

00:01:36,770 --> 00:01:33,960

will evaluate the composition of these

42

00:01:38,510 --> 00:01:36,780

mud flows microgravity can unlock new

43

00:01:40,789 --> 00:01:38,520

understanding of these phenomena which

44

00:01:42,890 --> 00:01:40,799

may improve modeling and prediction of

45

00:01:44,569 --> 00:01:42,900

their behavior what we learn could

46

00:01:46,490 --> 00:01:44,579

support the development of ways to

47

00:01:48,289 --> 00:01:46,500

prevent and reduce catastrophic

48

00:01:50,749 --> 00:01:48,299

post-fire events

49

00:01:52,130 --> 00:01:50,759

and now it's time for nachos but not the

50

00:01:54,350 --> 00:01:52,140

type that you eat

51
00:01:56,870 --> 00:01:54,360
the Nano sat atmospheric chemistry

52
00:01:58,850 --> 00:01:56,880
hyperspectral observation system or

53
00:02:01,370 --> 00:01:58,860
nachos for short flew to the space

54
00:02:03,590 --> 00:02:01,380
station in February weighing just 13

55
00:02:05,389 --> 00:02:03,600
pounds this prototype instrument could

56
00:02:07,670 --> 00:02:05,399
eventually make it easier to monitor

57
00:02:09,889 --> 00:02:07,680
volcanic activity and air quality in

58
00:02:12,110 --> 00:02:09,899
cities neighborhoods and power plants

59
00:02:14,510 --> 00:02:12,120
nachos will be the topic on this week's

60
00:02:16,430 --> 00:02:14,520
edition of Houston we have a podcast you

61
00:02:19,309 --> 00:02:16,440
can find it on Apple podcast Google

62
00:02:21,229 --> 00:02:19,319
podcast or SoundCloud or find it on the

63
00:02:23,150 --> 00:02:21,239

NASA Johnson Space Center social media

64

00:02:24,350 --> 00:02:23,160

channels on Facebook Instagram and

65

00:02:26,330 --> 00:02:24,360

Twitter

66

00:02:27,949 --> 00:02:26,340

and that's space to ground for now thank

67

00:02:29,360 --> 00:02:27,959

you so much for watching and we'll see

68

00:02:44,530 --> 00:02:29,370

you next week