



**Space**to**Ground**

1  
00:00:07,110 --> 00:00:05,030  
houston station on space to ground

2  
00:00:09,270 --> 00:00:07,120  
welcome to space to ground i'm nilla for

3  
00:00:11,270 --> 00:00:09,280  
ramji a change of command four

4  
00:00:13,910 --> 00:00:11,280  
astronauts returning home and a very

5  
00:00:15,749 --> 00:00:13,920  
happy black hole week 2022. space

6  
00:00:17,670 --> 00:00:15,759  
station cruise and science our front end

7  
00:00:19,510 --> 00:00:17,680  
center this week and i relinquish

8  
00:00:22,150 --> 00:00:19,520  
control of the command of the space

9  
00:00:24,150 --> 00:00:22,160  
station to you

10  
00:00:26,710 --> 00:00:24,160  
i accept commands

11  
00:00:28,790 --> 00:00:26,720  
expedition 67 commander tom marshburn

12  
00:00:31,189 --> 00:00:28,800  
handed over station control to ross

13  
00:00:33,190 --> 00:00:31,199

cosmo's flight engineer oleg artemyev

14

00:00:35,030 --> 00:00:33,200

where nine of the space station's flight

15

00:00:37,590 --> 00:00:35,040

engineers witnessed the ceremonial

16

00:00:39,590 --> 00:00:37,600

tradition artemiev who was on his third

17

00:00:42,150 --> 00:00:39,600

space station mission took command of

18

00:00:44,549 --> 00:00:42,160

the space station until late this summer

19

00:00:46,549 --> 00:00:44,559

with spacex crew 4 astronauts now in

20

00:00:48,229 --> 00:00:46,559

place to board the space station coup 3

21

00:00:49,830 --> 00:00:48,239

has splashed down off the coast of

22

00:00:52,229 --> 00:00:49,840

florida

23

00:00:54,389 --> 00:00:52,239

nasa astronauts tom marshburn rajashari

24

00:00:56,709 --> 00:00:54,399

and kayla barron alongside european

25

00:00:58,549 --> 00:00:56,719

space agency astronaut matthias moore

26  
00:01:01,189 --> 00:00:58,559  
packed up and prepared for their return

27  
00:01:03,270 --> 00:01:01,199  
to earth crew 3 boarded the spacex crew

28  
00:01:05,350 --> 00:01:03,280  
dragon endurance and undocked from the

29  
00:01:07,830 --> 00:01:05,360  
harmony modules forward port ending

30  
00:01:09,429 --> 00:01:07,840  
their stay on space station shari

31  
00:01:11,670 --> 00:01:09,439  
commanded the ride back home as the

32  
00:01:13,670 --> 00:01:11,680  
force and parachuted to a splashdown off

33  
00:01:15,590 --> 00:01:13,680  
the coast of florida about a day after

34  
00:01:17,749 --> 00:01:15,600  
they undocked

35  
00:01:20,070 --> 00:01:17,759  
nasa is celebrating the phenomena of

36  
00:01:21,749 --> 00:01:20,080  
black holes this week by using x-ray

37  
00:01:24,070 --> 00:01:21,759  
echoes scientists have mapped the

38  
00:01:27,429 --> 00:01:24,080

environments of black holes as they feed

39

00:01:29,830 --> 00:01:27,439

on stellar gas thanks to nasa's neutron

40

00:01:31,510 --> 00:01:29,840

star interior composition explorer or

41

00:01:33,830 --> 00:01:31,520

nicer and a team led by the

42

00:01:36,469 --> 00:01:33,840

massachusetts institute of technology

43

00:01:38,390 --> 00:01:36,479

they have mapped 10 such systems helping

44

00:01:41,030 --> 00:01:38,400

us understand how black holes evolve

45

00:01:43,429 --> 00:01:41,040

during an outburst nicer was designed to

46

00:01:45,590 --> 00:01:43,439

gather data about neutron stars but it

47

00:01:47,270 --> 00:01:45,600

has been proven to advance technologies

48

00:01:49,270 --> 00:01:47,280

and improve communication that will

49

00:01:51,749 --> 00:01:49,280

affect the next generation of human

50

00:01:55,109 --> 00:01:51,759

space flight taking us deeper into space

51

00:01:57,190 --> 00:01:55,119

than we ever thought possible

52

00:01:59,270 --> 00:01:57,200

the technology from nicer is being

53

00:02:01,990 --> 00:01:59,280

translated to the medical field to save

54

00:02:04,069 --> 00:02:02,000

human lives find out more about how a

55

00:02:06,310 --> 00:02:04,079

design from a stargazing experiment

56

00:02:08,309 --> 00:02:06,320

could enhance detecting disease and

57

00:02:11,029 --> 00:02:08,319

injuries by tuning in to this week's

58

00:02:13,990 --> 00:02:11,039

episode of houston we have a podcast you

59

00:02:17,190 --> 00:02:14,000

can find it by going to [nasa.gov](http://nasa.gov)

60

00:02:19,670 --> 00:02:17,200

podcasts houston we have a podcast along

61

00:02:21,910 --> 00:02:19,680

with the full library of nasa podcasts

62

00:02:25,030 --> 00:02:21,920

are also available on apple podcasts

63

00:02:26,630 --> 00:02:25,040

google podcast and soundcloud

64

00:02:28,309 --> 00:02:26,640

that's spacetogram for this week thanks

65

00:02:30,100 --> 00:02:28,319

so much for watching we'll see you next

66

00:02:40,710 --> 00:02:30,110

week