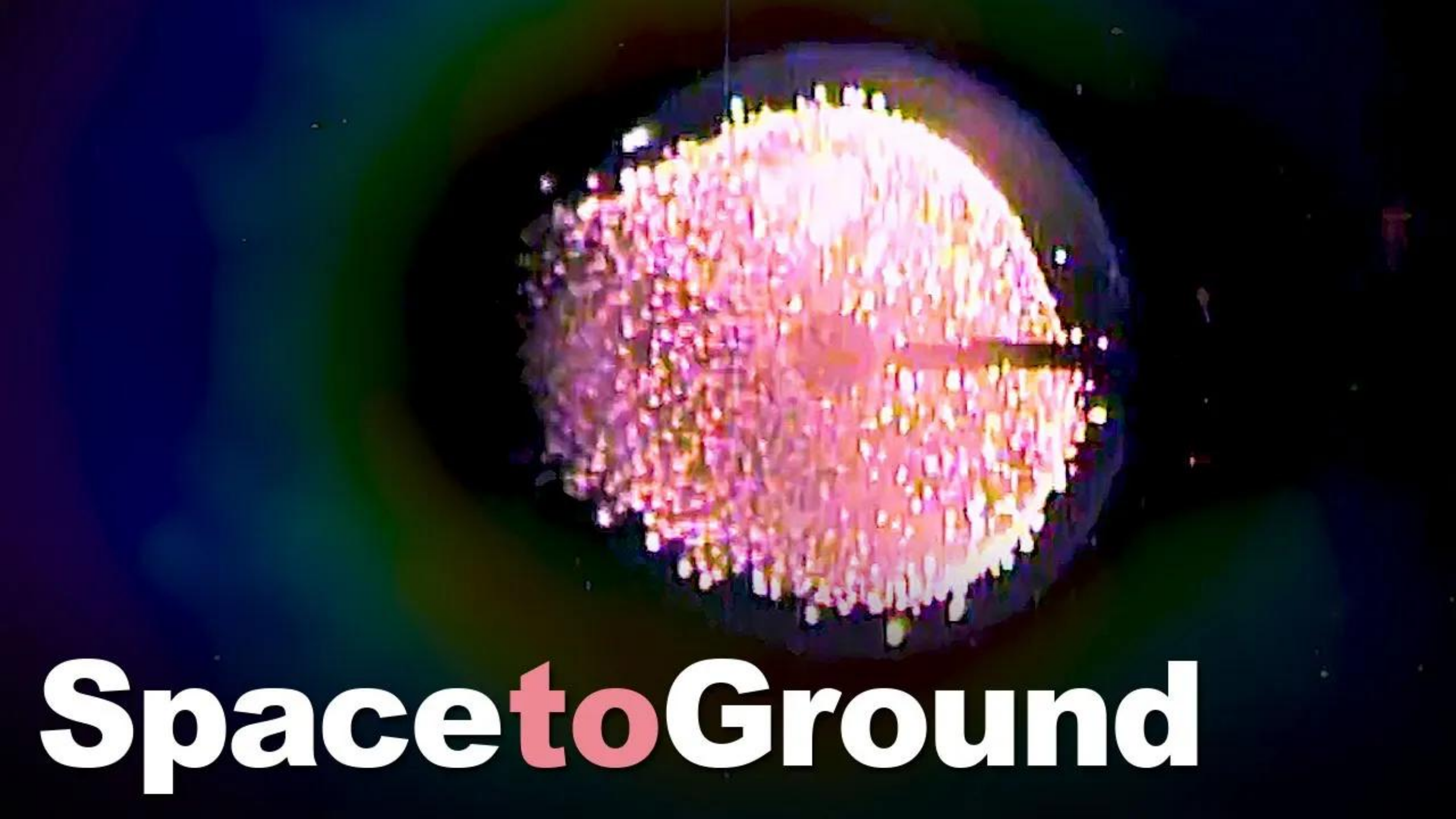
SpacetoGround

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

2
00:00:09,190 --> 00:00:07,040
welcome to space to ground i'm shaniqua

3
00:00:11,830 --> 00:00:09,200
marine relocations launches and

4
00:00:13,910 --> 00:00:11,840
undockings oh my it was a busy week in

5
00:00:17,430 --> 00:00:13,920
space and on the ground

6
00:00:18,870 --> 00:00:17,440
engine start and liftoff a module named

7
00:00:21,269 --> 00:00:18,880
science takes flight to the

8
00:00:23,670 --> 00:00:21,279
international space station

9
00:00:26,070 --> 00:00:23,680
on wednesday july 21st the russian

10
00:00:27,509 --> 00:00:26,080
multipurpose laboratory module naiuka

11
00:00:30,150 --> 00:00:27,519
was launched into space from the

12
00:00:32,470 --> 00:00:30,160
baikonur cosmodrome nayuka will serve as

13
00:00:35,030 --> 00:00:32,480

a new science facility docking port and

14
00:00:37,350 --> 00:00:35,040
spacewalk airlock for future operations

15
00:00:39,350 --> 00:00:37,360
upon arrival nayuka will automatically

16
00:00:41,430 --> 00:00:39,360
link up to the port of the earth-facing

17
00:00:43,350 --> 00:00:41,440
side of the russian segment

18
00:00:46,069 --> 00:00:43,360
that earth-facing port is currently home

19
00:00:48,229 --> 00:00:46,079
for the russian piers airlock pierce

20
00:00:50,709 --> 00:00:48,239
along with the russian progress 77 cargo

21
00:00:52,709 --> 00:00:50,719
craft will soon undock from the station

22
00:00:54,869 --> 00:00:52,719
making room for the new module check

23
00:00:56,150 --> 00:00:54,879
nasa.gov for the latest information to

24
00:00:58,549 --> 00:00:56,160
watch live

25
00:01:00,470 --> 00:00:58,559
also this week the spacex crew 2

26
00:01:03,349 --> 00:01:00,480
astronauts shane kimbrough meghan

27
00:01:05,350 --> 00:01:03,359
macarthur aki hoshide and tomah pesquet

28
00:01:07,510 --> 00:01:05,360
boarded crew dragon endeavor for a short

29
00:01:09,190 --> 00:01:07,520
flight the spacecraft undocked from the

30
00:01:11,350 --> 00:01:09,200
forward port of the station's harmony

31
00:01:13,350 --> 00:01:11,360
module about 50 minutes later the

32
00:01:15,270 --> 00:01:13,360
spacecraft docked to the station again

33
00:01:17,910 --> 00:01:15,280
this time at the station's space-facing

34
00:01:19,990 --> 00:01:17,920
port the relocation freed up harmony's

35
00:01:22,789 --> 00:01:20,000
forward port for the docking of boeing's

36
00:01:25,270 --> 00:01:22,799
cst 100 starliner spacecraft scheduled

37
00:01:27,109 --> 00:01:25,280
for saturday july 31st and if you're

38
00:01:29,109 --> 00:01:27,119

looking for a good conversation about

39
00:01:30,950 --> 00:01:29,119
the upcoming starliner mission we invite

40
00:01:33,429 --> 00:01:30,960
you to listen to this week's houston we

41
00:01:35,350 --> 00:01:33,439
have a podcast this week's special guest

42
00:01:37,830 --> 00:01:35,360
boeing starliner flight director bob

43
00:01:39,830 --> 00:01:37,840
dempsey discusses the upcoming uncrewed

44
00:01:41,510 --> 00:01:39,840
orbital flight test 2 mission to the

45
00:01:43,190 --> 00:01:41,520
international space station for nasa's

46
00:01:45,910 --> 00:01:43,200
commercial crew program

47
00:01:48,550 --> 00:01:45,920
go to nasa.gov slash podcast to find

48
00:01:50,710 --> 00:01:48,560
this and other nasa podcasts the podcast

49
00:01:53,429 --> 00:01:50,720
is also available on apple podcast

50
00:01:55,190 --> 00:01:53,439
google podcast and soundcloud

51
00:01:57,109 --> 00:01:55,200
back inside the station the science

52
00:01:59,270 --> 00:01:57,119
continues including cool flames

53
00:02:01,109 --> 00:01:59,280
investigation with gases

54
00:02:03,109 --> 00:02:01,119
cool flames flames that burn at

55
00:02:05,350 --> 00:02:03,119
extremely low temperatures are nearly

56
00:02:07,109 --> 00:02:05,360
impossible to create in earth's gravity

57
00:02:08,550 --> 00:02:07,119
however they are easily produced in the

58
00:02:10,229 --> 00:02:08,560
microgravity environment of the

59
00:02:12,470 --> 00:02:10,239
international space station

60
00:02:14,710 --> 00:02:12,480
in june aboard station spherical

61
00:02:16,949 --> 00:02:14,720
non-premix cool flames were observed

62
00:02:17,830 --> 00:02:16,959
burning gaseous fuels for the very first

63
00:02:20,630 --> 00:02:17,840

time

64
00:02:22,550 --> 00:02:20,640
non-premix cool flames created when fuel

65
00:02:25,350 --> 00:02:22,560
and oxidizer are not mixed before

66
00:02:27,030 --> 00:02:25,360
reacting were discovered in 2012 aboard

67
00:02:28,790 --> 00:02:27,040
the space station during the flame

68
00:02:30,630 --> 00:02:28,800
extinguishment studies

69
00:02:32,390 --> 00:02:30,640
cool flames are important to study

70
00:02:34,869 --> 00:02:32,400
because engine technology is trending

71
00:02:37,030 --> 00:02:34,879
toward lower temperatures the results of

72
00:02:38,790 --> 00:02:37,040
this investigation could lead to cleaner

73
00:02:40,229 --> 00:02:38,800
more efficient internal combustion

74
00:02:41,990 --> 00:02:40,239
engines

75
00:02:43,910 --> 00:02:42,000
that's space to ground for this week

76
00:02:57,430 --> 00:02:43,920
thank you so much for watching we'll see

77
00:03:06,229 --> 00:03:00,100
subscribe for more space