
JAXA

1
00:00:08,870 --> 00:00:06,070
good morning and welcome to mission

2
00:00:10,150 --> 00:00:08,880
control houston and space station live

3
00:00:12,390 --> 00:00:10,160
in space the three members of the

4
00:00:14,230 --> 00:00:12,400
expedition 36 crew are more than halfway

5
00:00:15,990 --> 00:00:14,240
through their day having started at 1 am

6
00:00:18,470 --> 00:00:16,000
central time and almost ready to wrap up

7
00:00:20,070 --> 00:00:18,480
a busy week on board the space station

8
00:00:22,230 --> 00:00:20,080
they have just a few days left with the

9
00:00:24,710 --> 00:00:22,240
space station to themselves now three

10
00:00:25,990 --> 00:00:24,720
new crewmates karen nyberg fyodor

11
00:00:28,230 --> 00:00:26,000
yurchikhin

12
00:00:30,630 --> 00:00:28,240
and luca parmitano will launch from the

13
00:00:32,790 --> 00:00:30,640

baikonur cosmodrome in kazakhstan to

14
00:00:34,549 --> 00:00:32,800
join them on tuesday

15
00:00:36,229 --> 00:00:34,559
the three kermit crew members have had a

16
00:00:39,190 --> 00:00:36,239
full week of maintenance and science

17
00:00:40,790 --> 00:00:39,200
activities on monday cassidy spent a

18
00:00:43,270 --> 00:00:40,800
good portion of his time working on the

19
00:00:45,510 --> 00:00:43,280
combustion integrated rack an experiment

20
00:00:48,069 --> 00:00:45,520
facility intended for use with the with

21
00:00:49,990 --> 00:00:48,079
combustion related investigations he did

22
00:00:52,869 --> 00:00:50,000
some routine maintenance

23
00:00:53,910 --> 00:00:52,879
replacing its fuel reservoir and igniter

24
00:00:55,670 --> 00:00:53,920
tips

25
00:00:57,430 --> 00:00:55,680
and some lesser teen maintenance for the

26
00:00:59,430 --> 00:00:57,440
first time since the facility launched

27
00:01:01,029 --> 00:00:59,440
into space cassidy replaced the seals

28
00:01:03,270 --> 00:01:01,039
that will keep the vacuum inside the

29
00:01:04,950 --> 00:01:03,280
hardware intact as well as protect the

30
00:01:06,630 --> 00:01:04,960
crew from any escape of the experiment

31
00:01:07,910 --> 00:01:06,640
inside

32
00:01:08,950 --> 00:01:07,920
once he had completed that work

33
00:01:10,070 --> 00:01:08,960
scientists here on the ground

34
00:01:12,870 --> 00:01:10,080
immediately got back to their

35
00:01:14,710 --> 00:01:12,880
experiments performing runs of flex the

36
00:01:16,390 --> 00:01:14,720
flame extinguishment experiment which

37
00:01:18,950 --> 00:01:16,400
assesses the effectiveness of fire

38
00:01:20,789 --> 00:01:18,960

suppressants in microgravity

39
00:01:22,789 --> 00:01:20,799
over the course of the week cassidy also

40
00:01:25,030 --> 00:01:22,799
spent time with the vein gap experiment

41
00:01:26,870 --> 00:01:25,040
part of the capillary flow investigation

42
00:01:29,109 --> 00:01:26,880
which investigates how fluids move up

43
00:01:31,749 --> 00:01:29,119
surfaces in microgravity

44
00:01:33,270 --> 00:01:31,759
the vein gap part looks particularly at

45
00:01:35,910 --> 00:01:33,280
critical wetting conditions for

46
00:01:37,830 --> 00:01:35,920
interfaces between interior corners

47
00:01:39,670 --> 00:01:37,840
separated by a gap

48
00:01:41,670 --> 00:01:39,680
which has applications in the storage

49
00:01:43,510 --> 00:01:41,680
transport and processing of liquids in

50
00:01:45,190 --> 00:01:43,520
space

51
00:01:47,030 --> 00:01:45,200
cassidy wrapped up that experiment on

52
00:01:48,950 --> 00:01:47,040
wednesday when scientists were able to

53
00:01:51,270 --> 00:01:48,960
finish a map of their

54
00:01:53,270 --> 00:01:51,280
measurements with cassidy's help

55
00:01:54,950 --> 00:01:53,280
in fact the scientist's name

56
00:01:57,990 --> 00:01:54,960
named his method of trapping the fluid

57
00:01:59,990 --> 00:01:58,000
in the gaps after him

58
00:02:02,469 --> 00:02:00,000
then on thursday cassidy took out the

59
00:02:04,389 --> 00:02:02,479
spheres or synchronized position hold

60
00:02:06,709 --> 00:02:04,399
engage and reorient experiment

61
00:02:08,469 --> 00:02:06,719
satellites in the kibo laboratory as

62
00:02:10,790 --> 00:02:08,479
part of a demonstration for the xero

63
00:02:12,150 --> 00:02:10,800

robotics competition

64
00:02:13,750 --> 00:02:12,160
as part of the competition students

65
00:02:15,830 --> 00:02:13,760
write algorithms for the spheres

66
00:02:18,309 --> 00:02:15,840
satellites to accomplish tasks relevant

67
00:02:20,630 --> 00:02:18,319
to future space missions the algorithms

68
00:02:22,150 --> 00:02:20,640
are then tested by the spheres team and

69
00:02:23,750 --> 00:02:22,160
the best designs are selected for the

70
00:02:27,350 --> 00:02:23,760
competition to operate the spheres

71
00:02:29,110 --> 00:02:27,360
satellite onboard the iss

72
00:02:30,949 --> 00:02:29,120
and today cassidy is finishing up an

73
00:02:33,270 --> 00:02:30,959
experiment he started last week the

74
00:02:35,350 --> 00:02:33,280
seedling growth experiment

75
00:02:37,589 --> 00:02:35,360
last thursday he planted thale crest

76
00:02:39,430 --> 00:02:37,599
seeds as part of the experiment which

77
00:02:41,030 --> 00:02:39,440
then examined their germination and

78
00:02:43,110 --> 00:02:41,040
growth under varying amounts of

79
00:02:45,110 --> 00:02:43,120
simulated gravity and in different

80
00:02:47,350 --> 00:02:45,120
colors of light

81
00:02:48,949 --> 00:02:47,360
today cassidy harvested those seedlings

82
00:02:50,869 --> 00:02:48,959
and quickly inserted them into one of

83
00:02:52,390 --> 00:02:50,879
the station's freezers to preserve the

84
00:02:54,470 --> 00:02:52,400
results for scientists on the ground to

85
00:02:55,910 --> 00:02:54,480
study when they returned on a later

86
00:02:57,270 --> 00:02:55,920
cargo ship

87
00:02:59,350 --> 00:02:57,280
meanwhile on the russian side of the

88
00:03:00,869 --> 00:02:59,360

station one of the main activities for

89
00:03:02,949 --> 00:03:00,879
the week has been setting up a new

90
00:03:05,190 --> 00:03:02,959
treadmill delivered on the most recent

91
00:03:07,190 --> 00:03:05,200
progress cargo vehicle inside the

92
00:03:09,190 --> 00:03:07,200
rosvett mini research module

93
00:03:11,910 --> 00:03:09,200
commander pavel vinogradov and flight

94
00:03:14,390 --> 00:03:11,920
engineer alexander misurkin removed and

95
00:03:16,550 --> 00:03:14,400
disassembled the older treadmill earlier

96
00:03:18,390 --> 00:03:16,560
this week and then set to insta work

97
00:03:20,869 --> 00:03:18,400
installing the new one

98
00:03:23,270 --> 00:03:20,879
today vinogradov is putting in a low

99
00:03:27,910 --> 00:03:23,280
noise fan that's part of that assembly

100
00:03:29,430 --> 00:03:27,920
inside the rossvet mini research module