



1
00:00:11,270 --> 00:00:07,430
good day and welcome to mission control

2
00:00:13,669 --> 00:00:11,280
houston today is friday november 8 2013

3
00:00:16,150 --> 00:00:13,679
and this is space station live

4
00:00:19,510 --> 00:00:16,160
on board we have nasa astronauts karen

5
00:00:22,070 --> 00:00:19,520
nyberg mike hopkins and rick mastracchio

6
00:00:23,029 --> 00:00:22,080
as well as russian commander fyodor your

7
00:00:26,070 --> 00:00:23,039
chicken

8
00:00:28,710 --> 00:00:26,080
his uh russian colleague sergei rezansky

9
00:00:31,429 --> 00:00:28,720
oleg kotov as well as european space

10
00:00:33,750 --> 00:00:31,439
agencies luca parmitano and the japan

11
00:00:35,110 --> 00:00:33,760
aerospace exploration agency's koichi

12
00:00:37,510 --> 00:00:35,120
wakata

13
00:00:39,350 --> 00:00:37,520

the three new expedition 37 crew members

14

00:00:41,110 --> 00:00:39,360

mastrakia wakata and turin are spending

15

00:00:42,549 --> 00:00:41,120

most of their day in hanover with their

16

00:00:44,549 --> 00:00:42,559

colleagues who will be departing the

17

00:00:46,630 --> 00:00:44,559

space station on sunday that's nyberg

18

00:00:47,990 --> 00:00:46,640

parmitano on your chicken your chicken

19

00:00:49,510 --> 00:00:48,000

with some help from hopkins is

20

00:00:52,310 --> 00:00:49,520

transferring experiments and water

21

00:00:54,389 --> 00:00:52,320

samples into the soyuz late breaking

22

00:00:57,189 --> 00:00:54,399

transfers before they return to earth on

23

00:00:59,029 --> 00:00:57,199

sunday parmitano also spending some time

24

00:01:01,270 --> 00:00:59,039

at the end of the day working on the bio

25

00:01:04,310 --> 00:01:01,280

lab facility installing new sample

26

00:01:06,390 --> 00:01:04,320

cassettes in its microscope bio lab is a

27

00:01:08,390 --> 00:01:06,400

european space agency facility used to

28

00:01:11,190 --> 00:01:08,400

perform space biology experiments on

29

00:01:13,670 --> 00:01:11,200

microorganisms cells tissue cultures

30

00:01:15,270 --> 00:01:13,680

small plants and small invertebrates

31

00:01:17,109 --> 00:01:15,280

nyberg and hopkins also are working

32

00:01:19,270 --> 00:01:17,119

together to install a wireless access

33

00:01:21,030 --> 00:01:19,280

point inside the kibo laboratory that's

34

00:01:22,789 --> 00:01:21,040

provided by the japan aerospace

35

00:01:24,710 --> 00:01:22,799

exploration agency

36

00:01:26,149 --> 00:01:24,720

olokotov and sergey ryazanskiy are

37

00:01:27,910 --> 00:01:26,159

spending much of their day making final

38

00:01:30,550 --> 00:01:27,920

preparations for their spacewalk on

39

00:01:32,469 --> 00:01:30,560

saturday that begins at 8 30 a.m central

40

00:01:34,230 --> 00:01:32,479

time during the spacewalk they'll be

41

00:01:36,310 --> 00:01:34,240

displaying an olympic torch that is

42

00:01:38,469 --> 00:01:36,320

headed for the opening ceremony of the

43

00:01:41,350 --> 00:01:38,479

2014

44

00:01:42,310 --> 00:01:41,360

winter olympic games in sochi russia in

45

00:01:43,990 --> 00:01:42,320

addition

46

00:01:45,830 --> 00:01:44,000

they will be preparing a pointing

47

00:01:49,350 --> 00:01:45,840

platform on the hull of the space

48

00:01:51,749 --> 00:01:49,360

station's zvezda service module for the

49

00:01:54,789 --> 00:01:51,759

installation of a high resolution camera

50

00:01:56,469 --> 00:01:54,799

system in december and also relocating a

51
00:01:57,830 --> 00:01:56,479
foot restraint to use on future

52
00:01:59,830 --> 00:01:57,840
spacewalks

53
00:02:02,789 --> 00:01:59,840
nasa television coverage of the

54
00:02:05,670 --> 00:02:02,799
spacewalk begins at 8 a.m central time

55
00:02:07,109 --> 00:02:05,680
the va itself begins at 8 30 a.m

56
00:02:09,029 --> 00:02:07,119
online crew members also today

57
00:02:10,550 --> 00:02:09,039
participated in a joint crew news

58
00:02:12,869 --> 00:02:10,560
conference answering questions from

59
00:02:15,030 --> 00:02:12,879
reporters around the globe

60
00:02:15,990 --> 00:02:15,040
throughout the week nyberg your chicken

61
00:02:20,229 --> 00:02:16,000
and

62
00:02:22,070 --> 00:02:20,239
departure among those items are the fan

63
00:02:23,830 --> 00:02:22,080

pump separator from luca parmitano's

64

00:02:25,350 --> 00:02:23,840

spacesuit that has been the subject of

65

00:02:27,670 --> 00:02:25,360

much troubleshooting after water

66

00:02:29,510 --> 00:02:27,680

collected in luca's helmet and required

67

00:02:30,710 --> 00:02:29,520

an early into a spacewalk with chris

68

00:02:32,710 --> 00:02:30,720

cassidy

69

00:02:35,830 --> 00:02:32,720

their landing is planned for sunday with

70

00:02:38,309 --> 00:02:35,840

undocking at 5 26 pm and landing at 8 49

71

00:02:40,470 --> 00:02:38,319

p.m on the step of kazakhstan

72

00:02:41,990 --> 00:02:40,480

thursday the station population

73

00:02:44,630 --> 00:02:42,000

increased to nine people for the first

74

00:02:46,630 --> 00:02:44,640

time since october 2009 at least without

75

00:02:48,630 --> 00:02:46,640

a space shuttle present the soyuz

76

00:02:50,309 --> 00:02:48,640

carrying mastracchio turian okada

77

00:02:53,589 --> 00:02:50,319

launched from the baikonur cosmodrome at

78

00:02:56,390 --> 00:02:53,599

10 14 p.m central time on wednesday

79

00:02:58,869 --> 00:02:56,400

docked to the space station at 4 27 a.m

80

00:03:01,990 --> 00:02:58,879

central time on thursday and hatches

81

00:03:03,750 --> 00:03:02,000

opened at 6 44 a.m with the crew

82

00:03:05,270 --> 00:03:03,760

entering into the space station to join

83

00:03:06,949 --> 00:03:05,280

their colleagues

84

00:03:08,790 --> 00:03:06,959

crew worked on a variety of experiments

85

00:03:10,630 --> 00:03:08,800

throughout the week including the body

86

00:03:13,110 --> 00:03:10,640

measures experiment which is aimed at

87

00:03:15,430 --> 00:03:13,120

collecting anthropometric data using

88

00:03:16,550 --> 00:03:15,440

digital still and video imagery and tape

89

00:03:18,229 --> 00:03:16,560

measures

90

00:03:19,750 --> 00:03:18,239

both hopkins and nyberg work with the

91

00:03:21,830 --> 00:03:19,760

spheres experiment which stands for

92

00:03:24,309 --> 00:03:21,840

synchronized position hold engage

93

00:03:25,990 --> 00:03:24,319

reorient experimental satellites

94

00:03:27,190 --> 00:03:26,000

hopkins did runs with the rings

95

00:03:28,789 --> 00:03:27,200

experiment

96

00:03:31,110 --> 00:03:28,799

variant which is called short for

97

00:03:33,270 --> 00:03:31,120

resident inductive near field generation

98

00:03:35,430 --> 00:03:33,280

system and is designed to demonstrate

99

00:03:37,030 --> 00:03:35,440

and test wireless power transfer and how

100

00:03:38,309 --> 00:03:37,040

the satellites can be controlled from

101

00:03:39,750 --> 00:03:38,319

the ground

102

00:03:42,550 --> 00:03:39,760

nyberg also worked with a different set

103

00:03:44,789 --> 00:03:42,560

of experiments to demonstrate the use of

104

00:03:46,710 --> 00:03:44,799

virtual 3d visualization to control

105

00:03:47,910 --> 00:03:46,720

multiple satellites with communication

106

00:03:49,830 --> 00:03:47,920

delays

107

00:03:52,149 --> 00:03:49,840

also this week parmitano worked with the

108

00:03:54,149 --> 00:03:52,159

in space experiment which short for

109

00:03:56,470 --> 00:03:54,159

structure of paramagnetic aggregates

110

00:03:59,830 --> 00:03:56,480

from colloidal emulsions and that's a

111

00:04:01,990 --> 00:03:59,840

study of the particle dynamics of such

112

00:04:04,789 --> 00:04:02,000

colloids which are liquids with solids

113

00:04:07,110 --> 00:04:04,799

suspended within them such as milk and

114

00:04:07,990 --> 00:04:07,120

detergents and the like and looking at

115

00:04:09,910 --> 00:04:08,000

how

116

00:04:11,910 --> 00:04:09,920

fluids that change properties in

117

00:04:13,910 --> 00:04:11,920

response to magnetic fields react in

118

00:04:16,469 --> 00:04:13,920

microgravity that's intended to help

119

00:04:18,469 --> 00:04:16,479

understand how to make adaptable new

120

00:04:20,310 --> 00:04:18,479

fluids for use in a variety of

121

00:04:22,069 --> 00:04:20,320

applications like brake systems and

122

00:04:24,230 --> 00:04:22,079

robotics

123

00:04:26,790 --> 00:04:24,240

overall the international space station

124

00:04:28,950 --> 00:04:26,800

doing very well as it orbits 260 miles

125

00:04:31,110 --> 00:04:28,960

above the earth's surface continuing to

126

00:04:33,270 --> 00:04:31,120

circle the globe every 90 minutes we're

127

00:04:35,270 --> 00:04:33,280

looking forward to saturday spacewalk

128

00:04:36,950 --> 00:04:35,280

coverage tomorrow and then sunday's

129

00:04:39,590 --> 00:04:36,960

departure and landing of three crew

130

00:04:41,030 --> 00:04:39,600

members leaving the crew of six on board

131

00:04:43,909 --> 00:04:41,040

the international space station to