



1
00:00:13,479 --> 00:00:16,749
>> Good day and welcome to
Mission Control, Houston.

2
00:00:16,749 --> 00:00:20,820
Today is Tuesday,
November the 5th, 2013,

3
00:00:20,820 --> 00:00:22,955
and this is Space Station live.

4
00:00:22,955 --> 00:00:25,524
Here in the Mission Control
Center the team is being led

5
00:00:25,524 --> 00:00:30,162
by Flight Director Scott Stover
and Hal Getzelman is talking

6
00:00:30,162 --> 00:00:34,467
with the Expedition 37 crew for
the International Space Station,

7
00:00:34,467 --> 00:00:38,070
making sure that everyone is on
the same page for the research

8
00:00:38,070 --> 00:00:40,940
and activities getting
ready for the arrival

9
00:00:40,940 --> 00:00:44,543
of three new crewmates of
Expedition 38 on Thursday,

10
00:00:44,543 --> 00:00:47,413
as well as a spacewalk
coming up on Saturday.

11

00:00:47,413 --> 00:00:54,286
On orbit right now are Karen
Nyberg and Mike Hopkins of NASA,

12
00:00:54,286 --> 00:00:56,355
along with the Commander
Fyodor Yurchikhin

13
00:00:56,355 --> 00:01:00,259
and two other Russians, Sergey
Ryazanskiy and Oleg Kotov,

14
00:01:00,259 --> 00:01:04,864
as well as European Space
Agency astronaut Luca Parmitano.

15
00:01:04,864 --> 00:01:07,633
Getting ready to head up to the
International Space Station this

16
00:01:07,633 --> 00:01:12,138
week are Mikhail
Tyurin of the Roscosmos,

17
00:01:12,138 --> 00:01:14,707
as well as NASA's
Rick Mastracchio

18
00:01:14,707 --> 00:01:19,612
and Japan Aerospace Exploration
Agency's Koichi Wakata.

19
00:01:22,148 --> 00:01:27,119
Today Mike Hopkins is working on
monthly and annual maintenance

20
00:01:27,119 --> 00:01:30,556
on the combined operational
load-bearing treadmill system

21

00:01:30,556 --> 00:01:32,825
known as short for as COLBERT.

22

00:01:32,825 --> 00:01:38,430
This is part of the [inaudible]
star project, which is short

23

00:01:38,430 --> 00:01:41,867
of ISS as test [inaudible]
for analog research.

24

00:01:41,867 --> 00:01:45,237
And that's, the idea behind
that is for crew members

25

00:01:45,237 --> 00:01:49,475
to perform procedures without
any input from the ground.

26

00:01:49,475 --> 00:01:53,345
This is expected to simulate
the effects of long-time delays

27

00:01:53,345 --> 00:01:57,750
for future long duration
missions to asteroids or Mars

28

00:01:57,750 --> 00:02:00,219
or other destinations
in the solar system,

29

00:02:00,219 --> 00:02:03,589
where they won't be able to
have up-to-the-minute help

30

00:02:03,589 --> 00:02:05,257
from Mission Control.

31

00:02:05,257 --> 00:02:07,826
Hopkins also spent some

time today working on the

32

00:02:07,826 --> 00:02:10,963

In Space experiment which studies particle dynamics

33

00:02:10,963 --> 00:02:16,135

of fluids that change properties in response to magnetic fields.

34

00:02:16,135 --> 00:02:18,637

Karen Nyberg meanwhile is performing, or getting ready

35

00:02:18,637 --> 00:02:23,809

to perform some experiments with the SPHERES experiment,

36

00:02:23,809 --> 00:02:29,815

which stands for Synchronized Position Hold and.

37

00:02:34,386 --> 00:02:38,357

The experiment is used to look

38

00:02:38,357 --> 00:02:42,861

at how a very small bowling ball sized satellites can interact

39

00:02:42,861 --> 00:02:48,467

with one another and essentially hold position relative

40

00:02:48,467 --> 00:02:49,535

to one another.

41

00:02:49,535 --> 00:02:51,570

Yesterday Mike Hopkins did a lot of work

42

00:02:51,570 --> 00:02:56,075
with the SPHERE's Rings
experiment, which is designed

43

00:02:56,075 --> 00:02:59,478
to locate even the potential
for doing power transfers

44

00:02:59,478 --> 00:03:01,814
without cables using
these satellites.

45

00:03:01,814 --> 00:03:06,919
Today Nyberg's use of the
experiment is going to work

46

00:03:06,919 --> 00:03:10,990
on how human machine
interaction works.

47

00:03:10,990 --> 00:03:13,926
They're going to be doing
analysis of time delays

48

00:03:13,926 --> 00:03:17,997
between the space station
and the ground, and the three

49

00:03:17,997 --> 00:03:21,033
and six degrees of
freedom operations

50

00:03:21,033 --> 00:03:22,701
for the Sirius [phonetic]
satellites aboard the space

51

00:03:22,701 --> 00:03:24,370
station and on the ground.

52

00:03:24,370 --> 00:03:27,239

And also using some
augmented reality tools

53

00:03:27,239 --> 00:03:31,277

to visualize the motions of
the satellites as they attempt

54

00:03:31,277 --> 00:03:33,479

to follow the crew member.

55

00:03:33,479 --> 00:03:36,915

Nyberg also did some
remote guide eye exams

56

00:03:36,915 --> 00:03:41,920

on Luca Parmitano today,
and Parmitano, meanwhile,

57

00:03:41,920 --> 00:03:45,090

is working to repair a
guiding rail along the bio lab

58

00:03:45,090 --> 00:03:48,394

microscope cassette,
switching out test samples

59

00:03:48,394 --> 00:03:52,231

in the material's science
laboratory and preparing along

60

00:03:52,231 --> 00:03:56,869

with Nyberg and Yurchikhin
for [inaudible] on Sunday.

61

00:03:56,869 --> 00:04:00,839

Yurchikhin of course is
packing items away in the Soyuz,

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00:04:00,839 --> 00:04:04,376

along with cargo that's going
to be returned to earth,

63

00:04:04,376 --> 00:04:07,413

as well as personal items for
the crew members in preparation

64

00:04:07,413 --> 00:04:10,549

for their upcoming
departure on Sunday.

65

00:04:10,549 --> 00:04:13,018

Oleg Kotov and Sergey
Ryazanskiy are preparing

66

00:04:13,018 --> 00:04:14,620

for the Saturday spacewalk,

67

00:04:14,620 --> 00:04:16,989

trying on their orion space
suits that they'll wear

68

00:04:16,989 --> 00:04:19,725

and performing leak checks
and systems checkouts on them.

69

00:04:19,725 --> 00:04:22,928

Yesterday they moved them
into the Piers airlock,

70

00:04:22,928 --> 00:04:25,064

which will be their
exit and reentry point

71

00:04:25,064 --> 00:04:27,199

for the space walk on Saturday.

72

00:04:27,199 --> 00:04:28,567

Meanwhile on Kazakhstan,

73

00:04:28,567 --> 00:04:31,737
the Soyuz that will carry Rick
Mastracchio, Koichi Wakata,

74

00:04:31,737 --> 00:04:34,139
and Mikhail Tyurin rolled

75

00:04:34,139 --> 00:04:37,509
out from the vehicle assembly
building to the launch pad

76

00:04:37,509 --> 00:04:40,112
for vertical installation
on the launch pad.

77

00:04:40,112 --> 00:04:42,781
In addition to viewing
the roll out,

78

00:04:42,781 --> 00:04:46,552
the crew out at Kazakhstan
will have some time to spend

79

00:04:46,552 --> 00:04:48,721
with their families and
make final preparations

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00:04:48,721 --> 00:04:53,359
for their launch at 10:14
p.m. Central Time tomorrow.

81

00:04:53,359 --> 00:04:56,228
That is 10:14 a.m.
Baikonur time.

82

00:04:56,228 --> 00:04:58,797
We're seeing video
that was recorded

83

00:04:58,797 --> 00:05:00,999
of the rollout earlier today.

84

00:05:08,073 --> 00:05:10,409
A lot of activities
coming up in support

85

00:05:10,409 --> 00:05:12,478
of the Expedition
38 Soyuz launch

86

00:05:12,478 --> 00:05:14,446
and docking on NASA television.

87

00:05:14,446 --> 00:05:17,716
We'll start our launch
coverage at 9:15 p.m. tomorrow,

88

00:05:17,716 --> 00:05:20,486
Wednesday, November 6th,
and expect to launch

89

00:05:20,486 --> 00:05:22,855
at 10:14 p.m. Central Time.

90

00:05:22,855 --> 00:05:25,657
On Thursday, we'll have
Soyuz docking coverage

91

00:05:25,657 --> 00:05:28,627
in the wee hours
beginning at 3:45 a.m.,

92

00:05:28,627 --> 00:05:31,096
along with the docking
which is anticipated

93

00:05:31,096 --> 00:05:33,632
at 4:31 a.m. Central Time.

94

00:05:33,632 --> 00:05:36,935

Our Soyuz hatch opening
coverage begins at 6:15 a.m.,

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00:05:36,935 --> 00:05:38,937

and the doorway between
the Soyuz

96

00:05:38,937 --> 00:05:42,107

and the Space Station
expected to swing open

97

00:05:42,107 --> 00:05:46,779

at 6:40 a.m. Central, and then
we'll have Expedition 38 docking

98

00:05:46,779 --> 00:05:48,881

at hatch opening video file

99

00:05:48,881 --> 00:05:52,518

at 8:00 a.m. Central
Time on Thursday.

100

00:05:54,920 --> 00:05:57,656

Otherwise all systems
working very well aboard the

101

00:05:57,656 --> 00:06:01,160

International Space Station in
support of continuing research

102

00:06:01,160 --> 00:06:04,897

as the Space Station
nears its 15th anniversary

103

00:06:04,897 --> 00:06:06,765

of the First Element
launch which is coming