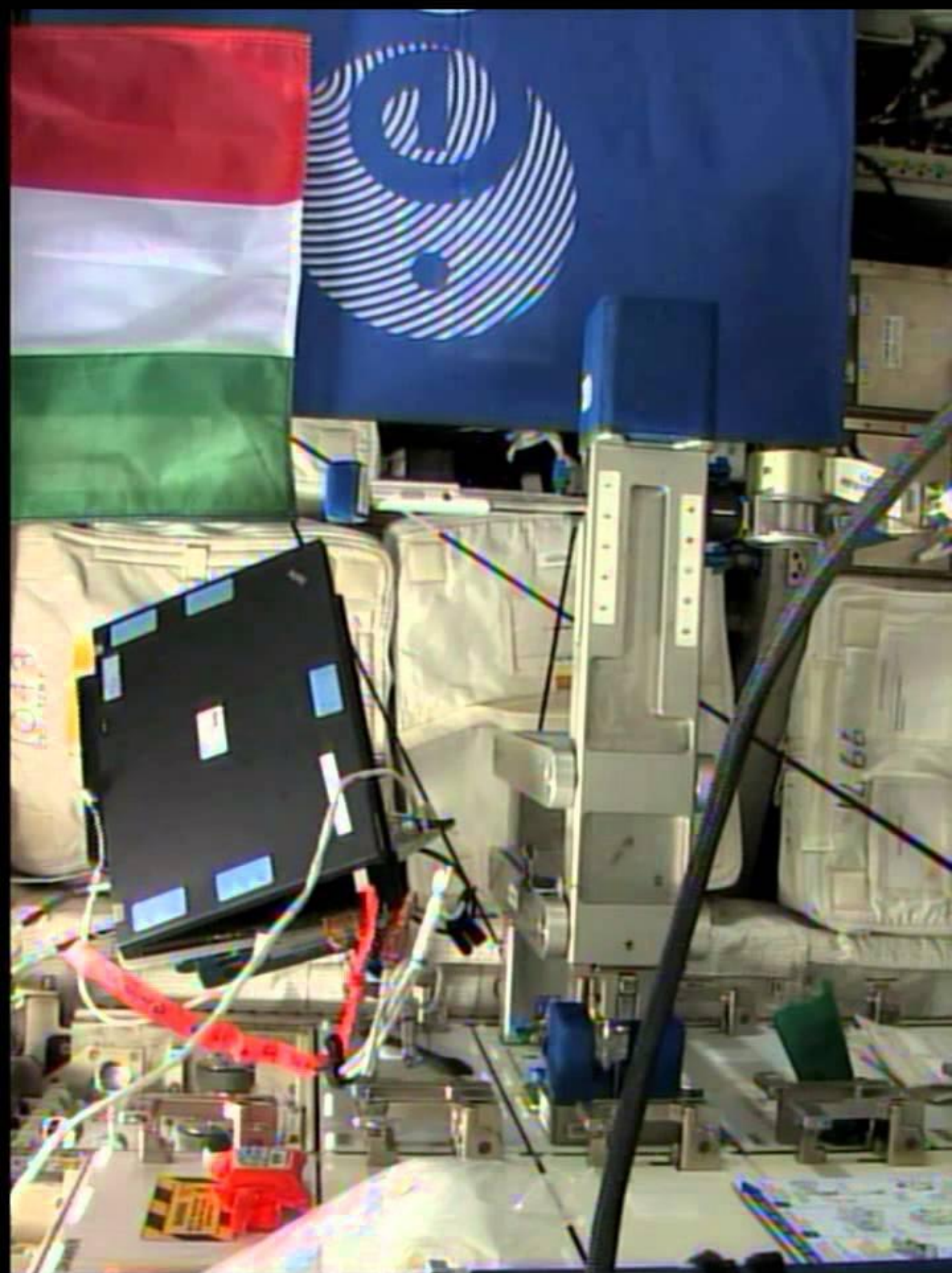

1
00:00:00,506 --> 00:00:12,536
[Music]

2
00:00:13,036 --> 00:00:14,896
>> This is Mission Control
Houston; we want to welcome you

3
00:00:14,896 --> 00:00:16,416
to today's Space Station Live.

4
00:00:16,416 --> 00:00:18,896
It is Wednesday,
October 30, 2013.

5
00:00:18,896 --> 00:00:21,536
This is a live view inside the
Space Station Flight Control

6
00:00:21,536 --> 00:00:24,316
Room here at the Johnson Space
Center in Houston, Texas.

7
00:00:24,716 --> 00:00:27,876
Today, the team is being led by
Flight Director Emily Nelson.

8
00:00:28,126 --> 00:00:31,086
Sitting beside her at the
Flight Director Console is David

9
00:00:31,086 --> 00:00:32,876
Saint-Jacques, he
is today's Capcom,

10
00:00:33,176 --> 00:00:34,486
he'll be the one
speaking with the crew

11
00:00:34,486 --> 00:00:37,046

up onboard the Space
Station itself.

12
00:00:37,646 --> 00:00:41,136
It's a pretty busy day for the
crew, Expedition 37 in progress

13
00:00:41,136 --> 00:00:42,446
above the orbiting complex.

14
00:00:42,446 --> 00:00:45,116
Today, Fyodor Yurchikhin,
who is the Commander

15
00:00:45,116 --> 00:00:48,866
of Expedition 37 is busy
working to pack up some items

16
00:00:48,866 --> 00:00:50,636
and equipment that will
come back home with him.

17
00:00:51,136 --> 00:00:53,116
Luca Parmitano, one of
his fellow crewmembers,

18
00:00:53,116 --> 00:00:56,306
as well as Karen Nyberg will
also be flying with him aboard

19
00:00:56,306 --> 00:00:58,296
that Soyuz Spacecraft
as they get ready

20
00:00:58,296 --> 00:01:04,446
to come home on November
the 10th.

21
00:01:04,626 --> 00:01:06,316
[Inaudible] Sergey

Ryazansky, also working today

22
00:01:06,316 --> 00:01:07,956
in the Russian segment to set up

23
00:01:07,956 --> 00:01:10,616
and resize the Russian Orlan
spacesuits that they will use

24
00:01:10,616 --> 00:01:14,056
on November the 9th as they
step outside for a spacewalk

25
00:01:14,056 --> 00:01:16,326
with the Olympic torch,
which is soon to be arriving

26
00:01:16,326 --> 00:01:18,946
at the Space Station with the
brand new crew that's going

27
00:01:18,946 --> 00:01:20,306
to be heading up there but
they're going to be taking

28
00:01:20,306 --> 00:01:24,126
that out on the 9th for a
spacewalk on the Russian segment

29
00:01:24,126 --> 00:01:27,086
of the space station with
that Olympic torch in hand.

30
00:01:28,886 --> 00:01:31,046
Also today, Parmitano
and Yurchikhin will test

31
00:01:31,046 --> 00:01:33,846
out some systems on that Soyuz
we were talking about in advance

32
00:01:33,846 --> 00:01:37,366
of the spacecraft's relocation
from [inaudible] to [inaudible],

33
00:01:37,366 --> 00:01:39,846
that's going to be taking
place on Friday morning.

34
00:01:39,846 --> 00:01:43,076
They will undock at
3:34 a.m. Central Time

35
00:01:43,076 --> 00:01:44,616
and re-dock their spacecraft

36
00:01:45,036 --> 00:01:47,706
with the [inaudible] service
module, which is on the back end

37
00:01:47,706 --> 00:01:51,206
of the station at 3:58
a.m. Central Time.

38
00:01:51,896 --> 00:01:54,826
This will make way for the
arrival of Rick Mastracchio,

39
00:01:55,196 --> 00:01:58,516
Mikhail Turin and Koichi
Wakata coming up in November.

40
00:01:58,516 --> 00:02:00,656
Of course we'll have live
coverage of all that here

41
00:02:00,656 --> 00:02:02,346
on NASA television on Friday.

42

00:02:04,016 --> 00:02:07,216
Mike Hopkins, another Expedition
37 crewmember has a monthly

43
00:02:07,216 --> 00:02:10,456
fitness evaluation today using
the stationary bicycle onboard

44
00:02:10,456 --> 00:02:13,436
the station; later today,
he will participate again

45
00:02:13,436 --> 00:02:16,096
in the ultrasound, the
spinal ultrasound experiment.

46
00:02:16,616 --> 00:02:18,896
This uses ultrasound technology
to take the measurement

47
00:02:18,896 --> 00:02:20,136
of the crewmember's spine.

48
00:02:20,926 --> 00:02:22,946
The goal of the experiment
is to help them determine

49
00:02:22,946 --> 00:02:26,276
and better predict changes that
happen to the spine on orbit.

50
00:02:26,676 --> 00:02:29,706
Crews have seen up to 3%
increase in height while

51
00:02:29,706 --> 00:02:31,046
in space, they get
a little bit taller,

52
00:02:31,516 --> 00:02:34,136

which sometimes causes back
pain and other symptoms

53
00:02:34,546 --> 00:02:37,526
so that spinal ultrasound will
take a look at better ways

54
00:02:37,526 --> 00:02:40,376
to predict how that could
affect certain crewmembers

55
00:02:40,676 --> 00:02:43,426
and whether there is
certain commonalities

56
00:02:43,686 --> 00:02:44,696
in between the crewmembers

57
00:02:44,696 --> 00:02:47,116
that can better predict how
they're going to react to it.

58
00:02:49,056 --> 00:02:50,956
Hopkins also working
with what's known

59
00:02:50,956 --> 00:02:53,116
as the SLAM D Device today;

60
00:02:53,696 --> 00:02:57,026
this stands for space linear
acceleration mass measurement

61
00:02:57,026 --> 00:02:58,566
device, this is located

62
00:02:58,566 --> 00:03:00,876
in the Columbus Laboratory
you see it sort of sticking

63
00:03:00,876 --> 00:03:02,966
out there with a blue
tip on the end of it.

64
00:03:04,296 --> 00:03:07,086
What it does is take a look at
Newton's Second Law of Motion

65
00:03:07,086 --> 00:03:09,696
by having two springs
generate a known force

66
00:03:10,166 --> 00:03:12,746
against the crewmembers
mounted on an extension arm.

67
00:03:12,746 --> 00:03:13,526
You see that arm there.

68
00:03:14,056 --> 00:03:15,906
The resulting acceleration
being used

69
00:03:15,906 --> 00:03:17,616
to calculate the subject's mass.

70
00:03:18,316 --> 00:03:22,416
This device is accurate to 0.5
pounds of a range from 90 pounds

71
00:03:22,416 --> 00:03:25,186
up to 240 pounds so basically
it takes care of everybody.

72
00:03:26,436 --> 00:03:28,896
This is basically how they
weight themselves in space

73
00:03:28,896 --> 00:03:31,296

because obviously they can't
really step on a scale up there.

74
00:03:32,946 --> 00:03:35,106
Karen Nyberg is retrieving
some samples today

75
00:03:35,106 --> 00:03:37,676
in the [inaudible] this is
the minus 80 degree laboratory

76
00:03:37,676 --> 00:03:38,926
freezer onboard the ISS.

77
00:03:38,926 --> 00:03:44,656
It's a big freezer
that is extremely cold.

78
00:03:45,356 --> 00:03:47,886
This is a cold storage unit that
maintains experiment samples

79
00:03:47,886 --> 00:03:49,816
at ultra-cold temperatures
throughout a mission

80
00:03:50,186 --> 00:03:52,636
so she's going to be taking
one sample from one to another

81
00:03:52,996 --> 00:03:55,966
and getting those ready to be
packed up and come back home.

82
00:03:56,386 --> 00:04:00,686
We've got some busy times ahead
for us here on NASA Television

83
00:04:00,686 --> 00:04:03,336
and for the crew of

Expedition 37 and soon

84
00:04:03,336 --> 00:04:05,286
to be 38 onboard
the Space Station.

85
00:04:05,876 --> 00:04:07,866
We're doing things a little
bit out of order this time,

86
00:04:07,866 --> 00:04:09,956
typically we land a crew
and then launch a crew

87
00:04:09,956 --> 00:04:10,746
but this time we're going

88
00:04:10,746 --> 00:04:13,186
to be launching one
before we land another.

89
00:04:13,186 --> 00:04:15,046
So here's a look at our
programming schedule

90
00:04:15,046 --> 00:04:18,366
on NASA Television beginning
on Wednesday November 6th

91
00:04:18,366 --> 00:04:21,526
at 9:15 p.m. Central time,
we'll have launch coverage

92
00:04:21,976 --> 00:04:23,706
as Rick Mastracchio,
Mikhail Turin

93
00:04:23,706 --> 00:04:25,876
and Koichi Wakata get ready
to head up into space.

94
00:04:26,386 --> 00:04:29,526
At 10:14 p.m., that is when the
launch will actually take place.

95
00:04:30,006 --> 00:04:31,316
On Thursday, November 7th,

96
00:04:31,316 --> 00:04:33,876
beginning at 3:45
a.m. Central Time,

97
00:04:34,576 --> 00:04:36,616
we'll have docking
coverage here on NASA TV.

98
00:04:37,136 --> 00:04:38,396
And then at 4:31, that is

99
00:04:38,396 --> 00:04:40,406
when that docking is
due to take place.

100
00:04:40,406 --> 00:04:42,346
At 6:15 a.m. Central Time,

101
00:04:42,346 --> 00:04:44,616
that's when we'll have hatch
opening coverage and then

102
00:04:44,616 --> 00:04:48,016
at 6:40, that's when the actual
hatch opening will take place

103
00:04:48,436 --> 00:04:51,006
and for once in several years,

104
00:04:51,006 --> 00:04:53,386
we'll have nine crewmembers

onboard the space station

105
00:04:53,796 --> 00:04:55,826
and three Soyuzes
actually docked

106
00:04:55,826 --> 00:04:57,166
with the orbiting complex.

107
00:04:57,506 --> 00:05:02,416
And then for our landing
coverage, as Fyodor Yurchikhin,

108
00:05:02,416 --> 00:05:04,576
Luca Parmitano and Karen
Nyberg get ready to come home

109
00:05:04,576 --> 00:05:07,356
on November the 10th at
1:30 p.m. Central Time,

110
00:05:07,356 --> 00:05:09,766
we'll have the farewell and
hatch closure coverage here

111
00:05:09,766 --> 00:05:12,206
on NASA TV where the
actual hatch is being closed

112
00:05:12,206 --> 00:05:14,606
at about 2 p.m. Central Time.

113
00:05:15,026 --> 00:05:17,846
Undocking coverage will
begin at 5 p.m. Central Time

114
00:05:17,846 --> 00:05:20,656
with the actual undocking
taking place at 5:26

115
00:05:21,166 --> 00:05:22,846
and then our landing
coverage will begin

116
00:05:22,846 --> 00:05:25,076
at 7:30 p.m. Central Time.

117
00:05:25,556 --> 00:05:28,336
The due orbit burn that will
bring this crew home will occur

118
00:05:28,336 --> 00:05:30,636
at 7:56 p.m. Central Time

119
00:05:31,006 --> 00:05:33,956
with the Soyuz landing
actually taking place at 8:50

120
00:05:33,956 --> 00:05:36,776
and then we'll have a video
file early Monday morning