
CATO

1
00:00:00,766 --> 00:00:09,575
[Music]

2
00:00:11,243 --> 00:00:15,281
>> Good day and welcome to
Mission Control Houston.

3
00:00:15,281 --> 00:00:17,650
Today is Monday, November 4,

4
00:00:17,650 --> 00:00:21,320
2013 and this is
Space Station Live.

5
00:00:21,320 --> 00:00:23,022
Today in Mission Control,

6
00:00:23,022 --> 00:00:24,957
the team of flight
controllers is being led

7
00:00:24,957 --> 00:00:28,160
by Flight Director Scott
Stover, he's working

8
00:00:28,160 --> 00:00:31,363
with Canadian Astronaut David
Saint-Jacques, who is serving

9
00:00:31,363 --> 00:00:33,466
as spacecraft communicator,
talking with the crew

10
00:00:33,466 --> 00:00:37,203
of Expedition 37, aboard the
International Space Station.

11
00:00:37,203 --> 00:00:40,673
That crew includes

Commander Fyodor Yurchikhin,

12
00:00:40,673 --> 00:00:46,679
as well as American Astronauts
Karen Nyberg and Mike Hopkins

13
00:00:46,679 --> 00:00:50,416
and European Space Agency
Astronaut Luca Parmitano

14
00:00:50,416 --> 00:00:55,654
and Cosmonauts Sergey
Ryazansky and Oleg Kotov.

15
00:00:56,856 --> 00:01:00,025
The crew of Expedition
37 is conducting research

16
00:01:00,025 --> 00:01:01,427
and getting ready
for the arrival

17
00:01:01,427 --> 00:01:04,897
of Expedition 38
crewmates on Thursday,

18
00:01:04,897 --> 00:01:08,033
as well as for a
spacewalk on Saturday.

19
00:01:08,033 --> 00:01:10,970
NASA Astronaut Karen
Nyberg, Commander Yurchikhin

20
00:01:10,970 --> 00:01:16,008
and ESA's Parmitano are packing
and stowing items in preparation

21
00:01:16,008 --> 00:01:17,776
for their Sunday departure.

22
00:01:17,776 --> 00:01:20,379
Among those items are
the fan pump separator

23
00:01:20,379 --> 00:01:23,749
from Luca Parmitano's spacesuit
that has been the subject

24
00:01:23,749 --> 00:01:26,552
of much troubleshooting after
water collected in Luca's helmet

25
00:01:26,552 --> 00:01:30,422
and required an early end to a
spacewalk with Chris Cassidy.

26
00:01:30,422 --> 00:01:33,726
Yurchikhin is taking special
precautions in packing that item

27
00:01:33,726 --> 00:01:37,263
to ensure its condition remains
pristine so that engineers

28
00:01:37,263 --> 00:01:40,933
on the ground can examine
it once it returns.

29
00:01:40,933 --> 00:01:44,537
Meanwhile, Mike Hopkins
and Russia's Oleg Kotov

30
00:01:44,537 --> 00:01:49,975
and Surgey Ryazansky are doing
work on a variety of Russian

31
00:01:49,975 --> 00:01:54,113
and American research
activities, as well as preparing

32
00:01:54,113 --> 00:01:57,917
for the upcoming spacewalk
by Kotov and Ryazansky

33
00:01:57,917 --> 00:02:00,819
who did a translation
review of their movements

34
00:02:00,819 --> 00:02:02,855
about the exterior
of the space station.

35
00:02:02,855 --> 00:02:05,925
Hopkins is working with the
synchronized position hold,

36
00:02:05,925 --> 00:02:09,161
engage, reorient experiment
satellite's experiment;

37
00:02:09,161 --> 00:02:12,398
we're seeing a live video of
that right now as it works

38
00:02:12,398 --> 00:02:15,167
with the RINGS component
of the experiments.

39
00:02:15,167 --> 00:02:17,870
RINGS is short for resonant
inductive near-field

40
00:02:17,870 --> 00:02:19,305
generation system.

41
00:02:19,305 --> 00:02:21,106
It's a Department of
Defense experiment,

42
00:02:21,106 --> 00:02:24,343
designed to demonstrate and
test wireless power transfers.

43
00:02:24,343 --> 00:02:27,346
The floating bowling ball
size satellite is encapsulated

44
00:02:27,346 --> 00:02:31,116
in a ring that will also be
used to study techniques related

45
00:02:31,116 --> 00:02:34,353
to micro electromagnetic
formation flight.

46
00:02:34,353 --> 00:02:37,923
It may also help enhance
attitude control performance

47
00:02:37,923 --> 00:02:41,794
between separate
satellites in the future.

48
00:02:41,794 --> 00:02:44,863
Parmitano worked with the
in-space, the structure

49
00:02:44,863 --> 00:02:49,301
of paramagnetic aggregates
from colloidal emulsions study;

50
00:02:49,301 --> 00:02:53,772
that looks at particle dynamics
of magneto rheological fluids;

51
00:02:53,772 --> 00:02:56,141
that is fluids that change
properties in response

52
00:02:56,141 --> 00:03:00,079
to magnetic fields to help
understand how those fluids can

53
00:03:00,079 --> 00:03:01,614
be used for new applications

54
00:03:01,614 --> 00:03:05,050
such as braking systems
and robotics.

55
00:03:05,050 --> 00:03:06,952
Yurchikhin also went
through a training session

56
00:03:06,952 --> 00:03:09,488
on the lower body
negative pressure device;

57
00:03:09,488 --> 00:03:11,757
that will be used to
help pull fluids back

58
00:03:11,757 --> 00:03:14,393
into his lower extremities
after his long duration stay

59
00:03:14,393 --> 00:03:17,296
on the space station and get
his body ready for a return

60
00:03:17,296 --> 00:03:21,300
to one gravity on earth;
that's a countermeasure device

61
00:03:21,300 --> 00:03:26,639
and method that's been studied
for years on various spacecraft.

62

00:03:26,639 --> 00:03:29,341
Kotov and Ryazansky
worked on the preparation

63
00:03:29,341 --> 00:03:31,543
of two Orlan spacesuits
that will be used

64
00:03:31,543 --> 00:03:32,945
in their Saturday spacewalk,

65
00:03:32,945 --> 00:03:37,983
which will involve several
assembly and maintenance tasks

66
00:03:37,983 --> 00:03:39,218
on the outside of
the space station

67
00:03:39,218 --> 00:03:40,519
and also involve the display

68
00:03:40,519 --> 00:03:42,855
of an Olympic torch
outside the station;

69
00:03:42,855 --> 00:03:46,225
it will be returning home with
Yurchikhin, Nyberg and Parmitano

70
00:03:46,225 --> 00:03:47,626
and eventually make its way

71
00:03:47,626 --> 00:03:51,864
to the 2014 winter Olympic
games in Sochi, Russia.

72
00:03:51,864 --> 00:03:55,934
The rundown on launch
of EVA coverage coming

73
00:03:55,934 --> 00:04:00,939
up for this week includes
PAO event tomorrow;

74
00:04:00,939 --> 00:04:06,011
that will be an event with
Karen Nyberg and Mike Hopkins,

75
00:04:06,011 --> 00:04:07,713
they'll be talking with
the weather channel

76
00:04:07,713 --> 00:04:11,817
and KSDK television
in Saint Louis.

77
00:04:11,817 --> 00:04:18,557
That event will start 8:15 a.m.
Central time, 9:15 a.m. Eastern.

78
00:04:18,557 --> 00:04:20,926
Then coming up later
on in the week,

79
00:04:20,926 --> 00:04:26,865
we'll have the preparations for
launch coverage from Baikonur;

80
00:04:26,865 --> 00:04:30,469
the launch coverage on
Wednesday starts at 9:15 p.m.

81
00:04:30,469 --> 00:04:35,140
with launch expected at 10:14
p.m. and then the day will cross

82
00:04:35,140 --> 00:04:37,810
over and we'll move into
Thursday, November 7

83
00:04:37,810 --> 00:04:42,081
and Soyuz docking coverage will
begin 3:45 a.m. with docking

84
00:04:42,081 --> 00:04:47,386
of the Soyuz, carrying three
crewmembers that are headed

85
00:04:47,386 --> 00:04:50,122
up to the space station.

86
00:04:50,122 --> 00:04:53,559
Mikhail Turin, Rick
Mastracchio, and Koichi Wakata

87
00:04:53,559 --> 00:04:55,894
to the International
Space Station;

88
00:04:55,894 --> 00:04:58,997
that docking coverage
will then be followed

89
00:04:58,997 --> 00:05:00,799
by a joint crew news
conference with --

90
00:05:00,799 --> 00:05:03,569
for the first time since 2009,

91
00:05:03,569 --> 00:05:06,505
nine crewmembers aboard the
International Space Station.

92
00:05:06,505 --> 00:05:08,374
That crew news conference
is scheduled

93

00:05:08,374 --> 00:05:13,645
for 7:50 a.m. Central Time
on Friday, November the 8.

94
00:05:13,645 --> 00:05:17,349
And then on Saturday, November
the 9, we'll have coverage

95
00:05:17,349 --> 00:05:22,020
of the Russian spacewalk number
36 with Kotov and Ryazansky

96
00:05:22,020 --> 00:05:26,992
and that coverage begins at
8 a.m. Central Time; again,

97
00:05:26,992 --> 00:05:29,862
all that coming up
on NASA Television.

98
00:05:31,463 --> 00:05:35,434
Meanwhile overnight, the Albert
Einstein ATV4 was deorbited

99
00:05:35,434 --> 00:05:40,105
at 6:28 a.m. Saturday
Central Time and it broke

100
00:05:40,105 --> 00:05:41,273
up over the Pacific Ocean,

101
00:05:41,273 --> 00:05:43,575
shortly after 4 a.m.
Central Time

102
00:05:43,575 --> 00:05:46,412
in a normal deorbit
maneuver conducted

103
00:05:46,412 --> 00:05:50,082

by European Space Agency Flight
Controllers in Toulouse, France;

104
00:05:50,082 --> 00:05:51,316
this is video recorded

105
00:05:51,316 --> 00:05:53,452
by the crew aboard the
International Space Station

106
00:05:53,452 --> 00:05:55,254
of that breakup.

107
00:05:56,455 --> 00:05:58,724
There is one more
ATV in the fleet;

108
00:05:58,724 --> 00:06:03,595
the final ATV5 is scheduled for
launch no earlier than June 5

109
00:06:03,595 --> 00:06:06,198
of next year and
that's name [inaudible]

110
00:06:06,198 --> 00:06:12,271
after the Belgian physicist and
father of the Big Bang Theory.

111
00:06:14,506 --> 00:06:17,509
Otherwise, all systems working
aboard the International Space

112
00:06:17,509 --> 00:06:20,212
Station, as it continues
to circle the globe,