
PAVEL
VINOGRADOV
EXPEDITION 35 FLIGHT ENGINEER

1
00:00:00,506 --> 00:00:10,546
[Music]

2
00:00:11,046 --> 00:00:13,776
>> Good morning everybody,
welcome to Space Station Live.

3
00:00:13,776 --> 00:00:16,226
It is Wednesday, May 8, 2013;

4
00:00:16,226 --> 00:00:18,946
this is a live view inside the
International Space Station

5
00:00:18,946 --> 00:00:20,096
Flight Control Room here

6
00:00:20,506 --> 00:00:23,126
at the Johnson Space
Center in Houston, Texas.

7
00:00:23,126 --> 00:00:25,246
Sitting there at the center
console is today's flight

8
00:00:25,246 --> 00:00:28,346
director that is Royce Renfrew
there in the white shirt.

9
00:00:28,796 --> 00:00:30,966
Sitting beside him
today is Carol Jacobs,

10
00:00:30,966 --> 00:00:33,046
she is actually visiting
the Johnson Space Center

11
00:00:33,046 --> 00:00:35,816
from our sister site, the

Marshall Space Flight Center;

12
00:00:35,816 --> 00:00:38,296
she is one of the payload
operations directors.

13
00:00:38,726 --> 00:00:40,106
She is also joined
by Jason Norwood,

14
00:00:40,106 --> 00:00:41,566
who is sitting just
out of camera view.

15
00:00:41,566 --> 00:00:43,506
There on the left hand
side is Serena [inaudible],

16
00:00:43,896 --> 00:00:46,966
she is the Capcom
for today talking

17
00:00:46,966 --> 00:00:50,066
with the crew onboard the
International Space Station.

18
00:00:51,166 --> 00:00:53,566
[Inaudible] Chris Hadfield
who is the commander

19
00:00:53,566 --> 00:00:55,856
of Expedition 35 is
busy this morning,

20
00:00:55,856 --> 00:00:59,426
he's been using a microscope
and a camera to take some photos

21
00:00:59,426 --> 00:01:02,276
of some of the crystal growth in

one of the Nano racks modules.

22
00:01:02,276 --> 00:01:05,606
This is some of the small plug
and play modules that are flown

23
00:01:05,606 --> 00:01:09,206
by students and researchers
alike, there's a standard rack

24
00:01:09,206 --> 00:01:11,046
up onboard the International
Space Station

25
00:01:11,046 --> 00:01:12,886
that these Nano racks
are plugged into.

26
00:01:13,586 --> 00:01:15,026
And this one, as
we talked about,

27
00:01:15,026 --> 00:01:16,366
is looking at crystal growth.

28
00:01:16,886 --> 00:01:18,006
He's also sampling some

29
00:01:18,006 --> 00:01:20,836
of the recycled water onboard
the International Space Station,

30
00:01:20,836 --> 00:01:23,916
just making sure that it is
acceptable for the crew to use

31
00:01:23,916 --> 00:01:25,166
and that there's
nothing growing in it.

32
00:01:25,716 --> 00:01:28,306
He has also been busy today
scrubbing the water loops inside

33
00:01:28,306 --> 00:01:30,636
the quest airlock which
is where the spacesuits

34
00:01:30,636 --> 00:01:33,206
and all the different
tools that the crew uses

35
00:01:33,206 --> 00:01:36,276
when they step outside, just
making sure those are up

36
00:01:36,276 --> 00:01:37,316
and running as expected.

37
00:01:37,756 --> 00:01:39,286
He also downloaded some data

38
00:01:39,286 --> 00:01:42,196
for the integrated
cardiovascular experiment

39
00:01:42,196 --> 00:01:44,456
which looks at how the heart
muscle gets smaller while the

40
00:01:44,456 --> 00:01:46,036
crew is up on orbit.

41
00:01:47,556 --> 00:01:50,556
[Inaudible], one of his fellow
crew members has been collecting

42
00:01:50,556 --> 00:01:53,816
some surface samples from parts

[inaudible] service module;

43
00:01:53,886 --> 00:01:56,646
he worked in the Zaria
Module earlier this week.

44
00:01:57,226 --> 00:01:59,916
This is part of just the
systematic and routine

45
00:01:59,916 --> 00:02:02,316
and examining of the inside of
the space station to make sure

46
00:02:02,316 --> 00:02:04,516
that the environment's okay
for the crew to live in.

47
00:02:05,976 --> 00:02:08,716
Chris Cassidy and Tom Marshburn
have also been busy this

48
00:02:08,716 --> 00:02:11,766
morning, Cassidy powered up
the robonaut robot on board

49
00:02:11,766 --> 00:02:13,306
for today's check
out activities.

50
00:02:13,306 --> 00:02:16,946
Robonaut's been being put
through its paces this week

51
00:02:16,946 --> 00:02:21,186
as it performs some routine
tasks to check out its systems

52
00:02:21,656 --> 00:02:24,266
and Cassidy and Marshburn

also spent the majority

53
00:02:24,266 --> 00:02:28,076
of their morning removing the
air selector valve that is part

54
00:02:28,076 --> 00:02:30,026
of the carbon dioxide
removal assembly

55
00:02:30,026 --> 00:02:32,016
which is inside the
tranquility node.

56
00:02:32,446 --> 00:02:34,686
[Inaudible], as it's
called, helps scrub the air

57
00:02:34,686 --> 00:02:38,106
of carbon dioxide and to
maintain it for the crew

58
00:02:38,106 --> 00:02:40,746
to breathe so they're going to
swap out that valve this morning

59
00:02:40,746 --> 00:02:43,326
and finish up that
activity this afternoon.

60
00:02:43,786 --> 00:02:47,016
Alexander Mazurkin has been
working on the immuno experiment

61
00:02:47,016 --> 00:02:49,886
that takes a look at changes
in stress and immune system

62
00:02:50,336 --> 00:02:52,656
up onboard the International

Space Station and how

63
00:02:52,656 --> 00:02:55,306
that affects the
astronauts and cosmonauts.

64
00:02:56,116 --> 00:02:58,006
And Roman Romanenko
has been working

65
00:02:58,006 --> 00:03:00,436
on what's called
the LBNP exercise,

66
00:03:00,436 --> 00:03:04,456
this is lower body negative
pressure, what that is is a pair

67
00:03:04,456 --> 00:03:06,646
of trousers that the
cosmonauts put on,

68
00:03:07,216 --> 00:03:09,586
it's sort of the opposite
of a blood pressure cuff,

69
00:03:09,676 --> 00:03:12,756
these actually reduce pressure,
it pulls blood down from the top

70
00:03:12,756 --> 00:03:14,526
of the body down to
the legs and it sort

71
00:03:14,526 --> 00:03:17,616
of emulates what the crews will
experience whenever they return

72
00:03:17,616 --> 00:03:20,286
to earth after five or

six months up in space.

73
00:03:20,286 --> 00:03:22,446
It helps them better
understand how the body reacts

74
00:03:22,956 --> 00:03:24,456
after they come back to earth.

75
00:03:24,906 --> 00:03:27,246
Romanenko also working on
the [inaudible] experiment,

76
00:03:27,496 --> 00:03:29,786
this takes a look
at radiation levels

77
00:03:29,786 --> 00:03:31,186
on the crewmembers
while they're up there.

78
00:03:31,186 --> 00:03:32,706
There's sort of a mannequin

79
00:03:33,066 --> 00:03:34,836
up onboard the International
Space Station

80
00:03:34,836 --> 00:03:37,486
that has different
sensors put on it

81
00:03:37,576 --> 00:03:38,936
to measure the radiation levels.

82
00:03:39,306 --> 00:03:44,776
And then finally Tom Marshburn,
Romanenko and Chris Hadfield,

83

00:03:44,776 --> 00:03:47,636
all three of them getting
ready to come back to earth

84
00:03:47,636 --> 00:03:51,406
or in the middle of departure
preparation and getting ready

85
00:03:51,406 --> 00:03:55,866
for the return on May 13,
just a few days from now,

86
00:03:55,866 --> 00:03:58,416
after this crew returns
after almost six months

87
00:03:58,416 --> 00:04:00,226
up onboard the International
Space Station.

88
00:04:00,226 --> 00:04:02,606
Here's a look at our
programming coming up for

89
00:04:02,606 --> 00:04:05,066
that as we bring you
live coverage; on Monday,

90
00:04:05,066 --> 00:04:07,456
May 13 at 2:30 p.m.
Central Time,

91
00:04:07,456 --> 00:04:10,186
we'll have our live
coverage of the hatch closure

92
00:04:10,606 --> 00:04:12,666
as the crews say
farewell to one another,

93

00:04:12,666 --> 00:04:14,506
the hatches will be closed
just a few minutes later.

94
00:04:15,346 --> 00:04:18,516
Our undocking coverage begins
at 5:45 p.m. Central Time

95
00:04:18,516 --> 00:04:22,126
with undocking taking
place at 6:08 and then

96
00:04:22,126 --> 00:04:25,316
at 8:15 p.m. Central Time, our
landing coverage will begin.

97
00:04:25,866 --> 00:04:29,186
Landing will take place
at 9:31 p.m. Central Time.

98
00:04:29,186 --> 00:04:32,346
They're going to be landing
to the south of the City

99
00:04:32,346 --> 00:04:34,556
of [inaudible], that is
the southern landing zone,

100
00:04:34,976 --> 00:04:38,046
that's going to be 8:31
a.m. local time there.

101
00:04:38,046 --> 00:04:41,916
And finally today the crew has
several different crew earth

102
00:04:41,916 --> 00:04:44,226
observation opportunities, a
chance for them to take a look

103

00:04:44,226 --> 00:04:45,996
down at the planet below
to take some pictures

104
00:04:45,996 --> 00:04:47,476
if they have a chance.

105
00:04:47,476 --> 00:04:48,106
They're going to be flying

106
00:04:48,106 --> 00:04:50,946
over the Mississippi
Delta Region here

107
00:04:50,946 --> 00:04:51,946
in the United States.

108
00:04:51,946 --> 00:04:54,276
It's been interesting because
there's been some Delta growth

109
00:04:54,926 --> 00:04:57,596
over the past 5,000 years;
the coastline has expanded

110
00:04:57,596 --> 00:05:03,586
between 15 and 50 miles as that
Delta River Region increases

111
00:05:03,586 --> 00:05:05,296
so they're going to get a
chance to take a look at that.

112
00:05:05,296 --> 00:05:07,766
They're going to be flying
over parts of Cuba today

113
00:05:07,766 --> 00:05:10,046
and also the California
wildfires that have happened

114
00:05:10,046 --> 00:05:12,886
over the last several
days, there's 44,000 acres

115
00:05:12,886 --> 00:05:14,596
that have burned there
in Southern California.

116
00:05:15,136 --> 00:05:18,776
Those fires have significantly
decreased and been doused

117
00:05:18,776 --> 00:05:22,676
by recent rains but they will be
flying over parts of that today