



1  
00:00:02,516 --> 00:00:10,546  
[ Music ]

2  
00:00:11,046 --> 00:00:11,506  
>> Good morning.

3  
00:00:11,556 --> 00:00:13,396  
Thank you for joining us  
for Space Station live

4  
00:00:13,396 --> 00:00:15,116  
from the Mission  
Control Center located

5  
00:00:15,116 --> 00:00:17,126  
at the Johnson Space  
Center in Houston, Texas.

6  
00:00:17,636 --> 00:00:19,736  
Our second shift for the  
flight control team is

7  
00:00:19,736 --> 00:00:21,766  
on duty, known as Orbit Two.

8  
00:00:21,766 --> 00:00:23,796  
This team works with the  
crew during the second half

9  
00:00:23,796 --> 00:00:26,176  
of the crew day, starting  
just before the midday meal

10  
00:00:26,176 --> 00:00:27,356  
for the station crew.

11  
00:00:27,736 --> 00:00:30,566  
Today leading that team is  
Flight Director, Emily Nelson.

12

00:00:31,086 --> 00:00:33,596

She's being assisted by  
Astronaut Serena Aunon,

13

00:00:33,596 --> 00:00:35,456

who's representing  
the crew office

14

00:00:35,456 --> 00:00:37,106

at the Cab Com Console  
in this view.

15

00:00:37,576 --> 00:00:40,026

Her voice is the one that you  
hear most of the time dialoging

16

00:00:40,026 --> 00:00:42,246

with the crew through the  
afternoon of their crew day.

17

00:00:43,806 --> 00:00:45,936

On board we have the  
Expedition 35 crew

18

00:00:45,936 --> 00:00:48,996

of NASA Astronauts Tom  
Marshburn and Chris Cassidy,

19

00:00:49,386 --> 00:00:52,256

joined by Canadian Space Agency  
Astronaut Chris Hadfield,

20

00:00:52,256 --> 00:00:54,106

who's serving as the  
Expedition Commander,

21

00:00:54,666 --> 00:00:56,586

and Cosmonauts Alexander  
Misurkin,

22

00:00:56,836 --> 00:00:59,036

Pavel Vinogradov,  
and Roman Romanenko.

23

00:00:59,656 --> 00:01:01,736

The crew workweek is  
underway with the crew now

24

00:01:01,736 --> 00:01:03,476

in the early afternoon  
of their crew day.

25

00:01:04,036 --> 00:01:05,956

They woke at 1:00  
a.m. Central Time.

26

00:01:07,656 --> 00:01:10,396

The first half of the day  
for Commander Chris Hadfield,

27

00:01:10,506 --> 00:01:12,176

and Flight Engineer,  
Tom Marshburn,

28

00:01:12,176 --> 00:01:14,156

were reaction self-test.

29

00:01:14,566 --> 00:01:19,526

Girls this is a portable test  
on board that helps to measure

30

00:01:19,526 --> 00:01:23,006

and study crew fatigue  
experienced during long duration

31

00:01:23,006 --> 00:01:23,636

space flights.

32

00:01:24,056 --> 00:01:26,436

They also took sample  
collections and measurements

33

00:01:26,436 --> 00:01:29,176

as part of the Pro-K  
metabolism study.

34

00:01:30,176 --> 00:01:32,726

All of the crew members then had  
some off-duty time for hygiene

35

00:01:32,726 --> 00:01:34,796

and breakfast before their  
start of the crew day,

36

00:01:34,796 --> 00:01:37,256

with a daily planning  
conference tag-up with all

37

00:01:37,256 --> 00:01:39,636

of their supporting  
flight control centers.

38

00:01:41,326 --> 00:01:43,796

Their morning also included  
a vehicle inspection

39

00:01:43,796 --> 00:01:45,146

and rebooting of laptops.

40

00:01:45,826 --> 00:01:48,236

For Commander Chris Hadfield,

41

00:01:48,546 --> 00:01:52,936

his first activities  
included photography

42

00:01:52,936 --> 00:01:55,576

of some experiment operations

on the Human Research Facility.

43

00:01:55,576 --> 00:01:59,956

He's also participating in the  
Circadian Rhythms experiment.

44

00:02:02,076 --> 00:02:05,136

He also had exercise sessions  
in potable water collections

45

00:02:05,136 --> 00:02:07,576

for in-flight chemical  
and microbial analysis.

46

00:02:07,976 --> 00:02:10,976

And experiment work on the  
binary Colloidal Alloy Test.

47

00:02:11,516 --> 00:02:15,816

[ Pause ]

48

00:02:16,316 --> 00:02:18,966

NASA Astronaut Tom Marshburn  
also had experiment work,

49

00:02:19,176 --> 00:02:22,026

performing blood draws, also  
for the Human Research Facility,

50

00:02:22,406 --> 00:02:28,936

and a big chunk of his day  
focused on Robonaut operations.

51

00:02:29,406 --> 00:02:31,696

In this case, he was  
assisted by Chris Cassidy

52

00:02:31,696 --> 00:02:36,006

to dawn a special  
helmet and glove

53

00:02:36,416 --> 00:02:39,446  
that will help accommodate  
telerobotic operations

54

00:02:39,446 --> 00:02:44,546  
in the future by using  
those special devices,

55

00:02:44,836 --> 00:02:46,836  
Marshburn was able to  
control Robonaut's head

56

00:02:46,836 --> 00:02:49,056  
and hand movements using  
his telerobotics gear.

57

00:02:49,526 --> 00:02:51,306  
That capability will  
allow the astronauts

58

00:02:51,306 --> 00:02:52,526  
to make real time decisions

59

00:02:52,526 --> 00:02:54,536  
and control Robonaut's'  
actions in the future.

60

00:02:56,266 --> 00:02:58,576  
Meanwhile, Cosmonauts  
Pavel Vinogradov

61

00:02:58,576 --> 00:03:00,516  
and Roman Romanenko  
were preparing

62

00:03:00,516 --> 00:03:03,206  
for space walking  
activities, gathering tools

63

00:03:03,206 --> 00:03:05,536  
and recharging the batteries  
in their Orlan spacesuits

64

00:03:05,536 --> 00:03:06,926  
for their upcoming spacewalk.

65

00:03:07,386 --> 00:03:10,036  
That EVA or extravehicular  
activity is planned

66

00:03:10,036 --> 00:03:12,686  
for April 19th, and will focus  
on deployment and retrieval

67

00:03:12,686 --> 00:03:14,246  
of experiments on  
the Russian segment.

68

00:03:14,696 --> 00:03:17,426  
In the replacement of a retro  
reflector navigation aid

69

00:03:17,746 --> 00:03:19,966  
on the [inaudible]  
to service module.

70

00:03:20,446 --> 00:03:23,676  
That will be used for the  
unpiloted European space

71

00:03:23,676 --> 00:03:26,736  
agency's Albert Einstein  
Automated Transfer Vehicle

72

00:03:26,736 --> 00:03:28,486  
when it approaches  
for automated docking

73

00:03:28,786 --> 00:03:29,976  
to the space station in June.

74

00:03:30,516 --> 00:03:32,546  
[ Pause ]

75

00:03:33,046 --> 00:03:34,776  
Now in the mid-afternoon  
of the crew day,

76

00:03:34,776 --> 00:03:37,446  
the crew members are continuing  
with their afternoon tasks.

77

00:03:37,446 --> 00:03:39,296  
Tom Marshburn will have all

78

00:03:39,296 --> 00:03:43,506  
of his exercise sessions this  
afternoon, including exercise

79

00:03:43,506 --> 00:03:46,056  
on the treadmill, as well  
as the cycle ergometer.

80

00:03:46,336 --> 00:03:49,306  
He'll also have some time  
allocated for journal entries

81

00:03:49,306 --> 00:03:50,836  
which is a part of  
an ongoing study

82

00:03:50,836 --> 00:03:52,586  
for long duration crew members.

83

00:03:53,396 --> 00:03:56,736  
Chris Cassidy will perform  
water sample analysis

84

00:03:57,216 --> 00:04:00,476

and also some other work on  
the water reclamation system

85

00:04:00,476 --> 00:04:03,706

and sample collections for  
the Human Research Facility.

86

00:04:05,356 --> 00:04:07,826

Commander Chris Hadfield will  
also perform water sample

87

00:04:07,826 --> 00:04:09,896

analysis, as well  
as some adjustments

88

00:04:10,126 --> 00:04:11,876

to the video camera  
assembly on board.

89

00:04:12,236 --> 00:04:16,366

He'll also collect samples  
for the energy experiment,

90

00:04:16,366 --> 00:04:19,166

which is another  
ongoing research study

91

00:04:19,166 --> 00:04:22,416

for long duration crew  
members that's being conducted

92

00:04:22,416 --> 00:04:25,186

by the European Space  
Agency to measure changes

93

00:04:25,186 --> 00:04:28,266

in the energy balances  
of crew members,

94

00:04:28,266 --> 00:04:32,636

and also their adaptations  
to total energy expenditure.

95

00:04:34,286 --> 00:04:36,616

The Cosmonauts will continue  
their afternoon activities

96

00:04:36,936 --> 00:04:39,416

with battery operations  
for their Orlan spacesuits,

97

00:04:39,416 --> 00:04:41,196

as well as some transfer  
activities

98

00:04:41,196 --> 00:04:42,916

from the progress cargo craft.

99

00:04:44,046 --> 00:04:47,256

They will close out their  
evening with some personal time

100

00:04:47,526 --> 00:04:48,456

and their evening meal.