



1
00:00:00,646 --> 00:00:03,566
Good day and welcome to
Mission Control Houston

2
00:00:03,566 --> 00:00:05,226
where it's a very busy day

3
00:00:05,226 --> 00:00:07,836
on orbit aboard the
International Space Station.

4
00:00:08,336 --> 00:00:11,666
Here in Mission Control
the team is watching

5
00:00:11,666 --> 00:00:13,476
over the systems aboard
the space station.

6
00:00:13,476 --> 00:00:15,576
Flight Director Greg
Whitney is in charge.

7
00:00:15,576 --> 00:00:17,376
Spacecraft communicator

8
00:00:17,376 --> 00:00:21,196
at his side is Clay Anderson
an experienced astronaut.

9
00:00:21,896 --> 00:00:23,706
Crew is doing very well.

10
00:00:23,766 --> 00:00:29,286
The six crew members are
working together as they prepare

11
00:00:29,286 --> 00:00:32,846
to have three crew members

depart and do a change

12

00:00:32,846 --> 00:00:34,916
of command ceremony
later on this month.

13

00:00:34,916 --> 00:00:37,256
Commander Suni Williams
right now leading the crew

14

00:00:37,786 --> 00:00:42,416
with her Soyuz crewmates Yuri
Malenchenko and Akihiko Hoshide

15

00:00:42,786 --> 00:00:45,276
of the Japan Aerospace
Exploration Agency

16

00:00:45,276 --> 00:00:47,246
and the Russian Federal
Space Agency.

17

00:00:47,776 --> 00:00:50,836
Newly arrived onboard the space
station are astronaut Kevin Ford

18

00:00:50,836 --> 00:00:54,366
of NASA and two Russian
colleagues Oleg Novitskiy

19

00:00:54,366 --> 00:00:56,606
and Evgeny Tarelkin.

20

00:00:56,956 --> 00:01:00,236
All six are working together
on a very busy program today

21

00:01:00,596 --> 00:01:03,756
of both crew orientation
for the new crew members,

22

00:01:04,066 --> 00:01:07,376
departure preparations for the
off-going crew members along

23

00:01:07,376 --> 00:01:09,906
with some post-spacewalk
configurations

24

00:01:09,906 --> 00:01:10,886
and battery charging.

25

00:01:11,336 --> 00:01:12,786
They're also working on a number

26

00:01:12,786 --> 00:01:14,966
of different scientific
experiments,

27

00:01:14,966 --> 00:01:17,786
one of them the Integrated
Cardiovascular experiment.

28

00:01:18,186 --> 00:01:20,066
That particular experiment looks

29

00:01:20,066 --> 00:01:24,816
at how the cardiovascular
system functions in space.

30

00:01:24,816 --> 00:01:28,746
It looks at cardiac atrophy
which is essentially a weakening

31

00:01:28,746 --> 00:01:31,626
of the heart and any
kind of dysfunction

32

00:01:31,626 --> 00:01:33,676

in the cardiovascular
system as they relate

33

00:01:33,676 --> 00:01:35,346
to long-duration spaceflight.

34

00:01:35,706 --> 00:01:39,026
And that research not only could
help future space travelers

35

00:01:39,026 --> 00:01:42,846
but could also help people on
the ground who have to suffer

36

00:01:42,846 --> 00:01:45,916
through long periods of
inactivity or bed rest

37

00:01:45,986 --> 00:01:48,636
that could potentially
weaken their hearts as well.

38

00:01:49,106 --> 00:01:51,926
Other experiments their working
on, the crew as part of that,

39

00:01:51,926 --> 00:01:55,226
is working on ultrasound
measurements of their bodies

40

00:01:55,226 --> 00:01:56,596
as they are exercising.

41

00:01:56,936 --> 00:01:59,816
They're doing blood draws
and collecting urine samples

42

00:01:59,816 --> 00:02:03,776
that then need to be either
spun before they're put away

43

00:02:03,776 --> 00:02:08,056
or placed into cold
storage areas

44

00:02:08,056 --> 00:02:09,246
so that they can be returned

45

00:02:09,246 --> 00:02:10,816
to the ground a little
bit later on.

46

00:02:11,956 --> 00:02:13,846
Aki Hoshide will
actually be setting

47

00:02:13,846 --> 00:02:17,786
up an electroencephalograph
to record his brain waves

48

00:02:17,786 --> 00:02:21,156
and system activity
while he sleeps tonight.

49

00:02:21,836 --> 00:02:25,166
Again we are coming up
on the planned change

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00:02:25,166 --> 00:02:27,506
of command ceremony
for the two crews.

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00:02:27,506 --> 00:02:30,236
That's when Suni Williams
will hand over command

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00:02:30,236 --> 00:02:32,936
of the space station to the
newly arrived Kevin Ford.

53

00:02:33,436 --> 00:02:36,506

That change of command ceremony is scheduled

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00:02:36,506 --> 00:02:40,296

for 1:15 p.m. Central time on Saturday, November 17.

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00:02:40,296 --> 00:02:43,156

And then that will be followed by an undocking

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00:02:43,216 --> 00:02:46,716

of the three Expedition 33 crew members Williams, Malenchenko

57

00:02:46,716 --> 00:02:49,706

and Hoshide who will be departing the space station

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00:02:50,316 --> 00:02:54,876

on Sunday, November 18, and then landing in Kazakhstan

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00:02:54,876 --> 00:02:58,336

about 7:50 p.m. Central time on November 18.

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00:02:59,186 --> 00:03:01,016

On orbit today the crew is going

61

00:03:01,016 --> 00:03:03,556

to be celebrating a special activity.

62

00:03:03,556 --> 00:03:06,316

Last week they celebrated the 12th anniversary

63

00:03:06,316 --> 00:03:09,686
of human habitation aboard the
International Space Station.

64

00:03:09,686 --> 00:03:12,426
That's a dozen years in
orbit by crew members.

65

00:03:12,906 --> 00:03:16,176
Today is going to be a slightly
more esoteric anniversary.

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00:03:16,176 --> 00:03:19,046
This is going to be
the 80,000th orbit

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00:03:19,046 --> 00:03:21,546
for the Zarya control
module, the first module

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00:03:21,546 --> 00:03:23,266
of the International
Space Station.

69

00:03:23,616 --> 00:03:30,116
It was launched in 1998 and has
been providing excellent support

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00:03:30,116 --> 00:03:32,016
for the station activities
throughout the period.

71

00:03:32,016 --> 00:03:37,356
We're right now on
orbit number 79,999.

72

00:03:37,816 --> 00:03:41,836
And that's the distance
of about 2.1 billion miles

73

00:03:42,216 --> 00:03:44,906
which is almost the same
distance as from the Earth

74
00:03:44,906 --> 00:03:46,466
to Pluto at its closest.

75
00:03:47,646 --> 00:03:48,926
Houston, Endeavour.

76
00:03:48,926 --> 00:03:50,336
We have captured Zarya.

77
00:03:50,336 --> 00:03:57,016
And that was Commander Bob
Cabana of the shuttle mission

78
00:03:57,016 --> 00:04:00,276
that went to put
together the Unity module,

79
00:04:00,356 --> 00:04:04,306
also known as Node 1, and the
Zarya control module in orbit.

80
00:04:04,396 --> 00:04:07,186
So a dozen years ago.

81
00:04:07,556 --> 00:04:13,136
The space station continuing its
operations now with the 34th set

82
00:04:13,136 --> 00:04:15,236
of station crew members onboard.

83
00:04:16,376 --> 00:04:17,696
All systems working well

84
00:04:17,696 --> 00:04:20,686

as the crew is performing
a number different tasks

85

00:04:20,686 --> 00:04:22,286

and continuing the
research today.

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00:04:22,666 --> 00:04:26,136

But everything is working very
well following last week's

87

00:04:26,136 --> 00:04:28,996

spacewalk and flight
controllers are continuing

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00:04:28,996 --> 00:04:33,496

to monitor the external thermal
control systems after that EVA

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00:04:33,496 --> 00:04:36,986

or spacewalk to bypass
a leaking radiator.

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00:04:36,986 --> 00:04:40,116

It'll take awhile to gather
all the data that's needed

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00:04:40,116 --> 00:04:42,706

to identify whether all
those repairs were completed

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00:04:42,706 --> 00:04:45,486

successfully and whether the
thermal control system is

93

00:04:45,486 --> 00:04:46,366

working well.

94

00:04:46,736 --> 00:04:50,346

But so far all of the early

data looks very good following