



EXPEDITION 32

GENNADY PADALKA
Commander

1
00:00:01,376 --> 00:00:02,776
Good morning and welcome

2
00:00:02,776 --> 00:00:05,366
to today's International
Space Station update hour.

3
00:00:05,836 --> 00:00:07,116
You're joining us here inside

4
00:00:07,116 --> 00:00:09,186
of the International Space
Station flight control room,

5
00:00:09,726 --> 00:00:11,236
where the Orbit Two
team is currently

6
00:00:11,236 --> 00:00:13,936
on console monitoring all
their respective systems

7
00:00:14,166 --> 00:00:15,946
on board this orbiting
laboratory.

8
00:00:16,876 --> 00:00:18,296
Today's team is being led

9
00:00:18,296 --> 00:00:20,856
by Flight Director Courtenay
McMillan there on the right.

10
00:00:21,246 --> 00:00:23,986
Joining her at the Capcom
position is Anna Fisher,

11
00:00:24,326 --> 00:00:26,946
serving as the communication

link between controllers here

12

00:00:26,946 --> 00:00:29,466
on the ground and the
astronauts up in space.

13

00:00:29,886 --> 00:00:34,226
And those astronauts right now
are the crew of Expedition 32,

14

00:00:34,766 --> 00:00:37,336
being led by Russian
cosmonaut Gennady Padalka there

15

00:00:37,336 --> 00:00:39,766
in the middle, currently
on his fourth flight,

16

00:00:39,766 --> 00:00:42,266
his third of which on the
International Space Station.

17

00:00:42,816 --> 00:00:45,526
To the left is another Russian
cosmonaut, Sergei Revin,

18

00:00:45,526 --> 00:00:48,366
a rookie on board the station
on his first spaceflight,

19

00:00:48,736 --> 00:00:51,106
and there on the right is
NASA astronaut Joe Acaba,

20

00:00:51,106 --> 00:00:55,176
veteran of one shuttle mission,
STS-119, on his second flight.

21

00:00:56,716 --> 00:01:00,946
Getting right into the crew's

day here we can see Joe Acaba

22

00:01:00,946 --> 00:01:04,336
working inside the
International Space Station.

23

00:01:04,336 --> 00:01:08,456
He was busy doing some
work inside the ATV cargo

24

00:01:08,456 --> 00:01:09,386
transfer vehicle.

25

00:01:09,386 --> 00:01:12,296
All three of our astronauts
on board have been doing

26

00:01:12,296 --> 00:01:14,676
that throughout their day today.

27

00:01:15,306 --> 00:01:18,626
Acaba was installing a few
stowage rack adapters inside

28

00:01:18,626 --> 00:01:22,126
of that unmanned cargo craft
to allow for some trash

29

00:01:22,126 --> 00:01:24,376
to be transferred over to
it, in order to make room

30

00:01:24,376 --> 00:01:25,786
for some items that
will be coming

31

00:01:25,786 --> 00:01:28,426
up on the HTV transfer vehicle,

32

00:01:28,766 --> 00:01:30,946

the Japanese unmanned
cargo craft

33

00:01:30,946 --> 00:01:32,936

which will be launching a
little bit later this month.

34

00:01:33,476 --> 00:01:35,946

Aside from that Acaba's
also doing some work today

35

00:01:35,946 --> 00:01:38,856

with the BASS experiment, or
the Burning And Suppression

36

00:01:38,856 --> 00:01:41,746

of Solids, which burns
different fuel samples

37

00:01:41,746 --> 00:01:45,126

in that microgravity environment
to study how flame reacts

38

00:01:45,126 --> 00:01:47,836

and the best way to
suppress those flames.

39

00:01:47,836 --> 00:01:49,486

You can see Acaba here working

40

00:01:49,486 --> 00:01:51,336

with the Microgravity
Science Glovebox

41

00:01:51,336 --> 00:01:52,896

on that a little
bit earlier today.

42

00:01:53,436 --> 00:01:56,196

Aside from that, he was
doing some routine cleaning

43

00:01:56,196 --> 00:01:59,066

on the station's clean bench,
checking its relief valve

44

00:01:59,066 --> 00:02:01,716

and a few of the
microscope controls,

45

00:02:02,386 --> 00:02:05,066

and also doing another
battery swap today

46

00:02:05,066 --> 00:02:09,046

on the station's EarthKAM, which
he set up earlier this week

47

00:02:09,046 --> 00:02:11,406

on Monday for students
around the country

48

00:02:11,406 --> 00:02:14,106

to control via the Internet
to take different pictures

49

00:02:14,476 --> 00:02:19,336

of different geological
features around the planet.

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00:02:19,366 --> 00:02:22,586

Moving on, Commander Padalka
was also again working

51

00:02:22,586 --> 00:02:25,096

with that HTV cargo
vehicle doing some cargo

52

00:02:25,096 --> 00:02:26,546

transfer operations.

53

00:02:26,946 --> 00:02:31,096

He's also doing some routine cleaning and filter replacements

54

00:02:31,096 --> 00:02:35,226

on the station's Zarya module and on the Russian segment.

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00:02:35,696 --> 00:02:38,356

He'll be cleaning out a few of the dust collectors and changing

56

00:02:38,356 --> 00:02:39,636

out some filters to ensure

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00:02:39,636 --> 00:02:42,936

that the astronauts' breathing air is being cleaned

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00:02:42,936 --> 00:02:46,856

appropriately to make sure their atmosphere is safe

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00:02:47,486 --> 00:02:50,036

for human habitation.

60

00:02:50,766 --> 00:02:53,436

Aside from that, he'll also be doing some monthly maintenance

61

00:02:53,436 --> 00:02:55,586

work on the TVIS, or the Treadmill

62

00:02:55,586 --> 00:03:01,336

with Vibration Isolation and Stabilization, one of a suite

63

00:03:01,336 --> 00:03:04,506
of exercise devices on board
the station for these astronauts

64

00:03:04,506 --> 00:03:07,676
to keep their bodies in
top shapes as they look

65

00:03:07,676 --> 00:03:10,246
to combat the negative
effects of weightlessness.

66

00:03:10,246 --> 00:03:12,716
You can see the TVIS here,
basically a treadmill

67

00:03:12,716 --> 00:03:15,186
with a harness on it
that keeps the astronauts

68

00:03:15,186 --> 00:03:18,306
from floating away and actually
puts some force down on them

69

00:03:18,686 --> 00:03:21,946
so they can run and keep
their cardiovascular health up

70

00:03:21,946 --> 00:03:24,936
and also put some pressure
on the bones in their legs

71

00:03:24,936 --> 00:03:27,756
to help combat any of
the loss in bone density

72

00:03:27,756 --> 00:03:28,616
that they're prone to.

73

00:03:29,556 --> 00:03:33,276

Then our third Expedition
32 crew member,

74

00:03:33,276 --> 00:03:37,436

Russian cosmonaut Sergei Revin,
started off his day early today

75

00:03:37,436 --> 00:03:40,066

with taking some blood
and saliva samples

76

00:03:40,066 --> 00:03:42,336

from the Russian Immuno
test, so something

77

00:03:42,336 --> 00:03:44,276

that Commander Padalka
was doing yesterday.

78

00:03:44,736 --> 00:03:48,136

It looks to track
the changes in stress

79

00:03:48,136 --> 00:03:50,016

and how it affects the
human immune system

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00:03:50,626 --> 00:03:53,926

and has some direct implications
for people down here on Earth.

81

00:03:54,396 --> 00:03:58,026

He'll be taking those
saliva and blood samples

82

00:03:58,026 --> 00:03:59,226

and also urine samples

83

00:03:59,456 --> 00:04:01,556

and taking a few stress tests throughout the day.

84

00:04:02,026 --> 00:04:04,546

All that will be tracked by people down here on the ground.

85

00:04:05,036 --> 00:04:07,896

He's also working with the Russian Relaxation experiment,

86

00:04:07,896 --> 00:04:11,756

doing some hardware set up and running a few test runs.

87

00:04:12,266 --> 00:04:15,146

That Relaxation experiment looks to determine the effects

88

00:04:15,286 --> 00:04:19,066

of propulsion system exhaust on the Earth's upper atmosphere

89

00:04:19,066 --> 00:04:21,956

and then different optically sensitive surfaces

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00:04:21,956 --> 00:04:25,036

on board the International Space Station, such as windows,