1
00:00:01,567 --> 00:00:03,636
Good morning from mission
control Houston and welcome

2
00:00:03,636 --> 00:00:06,605
to today's International
Space Station update.

3
00:00:06,605 --> 00:00:09,542
Joining us here inside of the
flight control room watching

4
00:00:09,542 --> 00:00:11,010
as the orbit two team is sitting

5
00:00:11,010 --> 00:00:14,313
at console monitoring all their
respective systems onboard this

6
00:00:14,313 --> 00:00:16,048
orbiting laboratory.

7
00:00:16,048 --> 00:00:19,552
Today's team being led today
by flight director Brian Smith.

8
00:00:19,552 --> 00:00:22,688
Joining him there at the Capcom
position is Jeremy Hansen

9
00:00:22,688 --> 00:00:24,857
serving as the communication
link between all

10
00:00:24,857 --> 00:00:26,926
of our controllers
down here on the ground

11
00:00:26,926 --> 00:00:29,195

and the astronauts up in space.

12
00:00:29,195 --> 00:00:31,564
Those astronauts right now
are the crew of Expedition 34,

13
00:00:31,564 --> 00:00:34,500
kicking off their Monday
with a lot of experiment

14
00:00:34,500 --> 00:00:37,236
and repair work on board the
station., They're being led

15
00:00:37,236 --> 00:00:39,205
by NASA astronaut
Kevin Ford there

16
00:00:39,205 --> 00:00:41,574
in the front row on the left.

17
00:00:41,574 --> 00:00:44,076
Behind him Russian
cosmonauts Oleg Novitskiy

18
00:00:44,076 --> 00:00:45,478
and Evgeny Tarelkin.

19
00:00:45,478 --> 00:00:47,947
Those three have been onboard
the International Space Station

20
00:00:47,947 --> 00:00:50,816
since late October and
our three on the right,

21
00:00:50,816 --> 00:00:53,986
Russian cosmonaut Roman
Romanenko, Chris Hadfield

22
00:00:53,986 --> 00:00:56,355
from the Canadian space
agency and Tom Marshburn,

23
00:00:56,355 --> 00:00:58,958
another NASA astronaut all
the way on the right there.

24
00:00:58,958 --> 00:01:02,261
The three later-joining
members of Expedition 34.

25
00:01:02,261 --> 00:01:04,196
They docked to the
International Space Station back

26
00:01:04,196 --> 00:01:05,798
in late December.

27
00:01:05,798 --> 00:01:07,566
As mentioned it's
a pretty busy day

28
00:01:07,566 --> 00:01:09,168
for these astronauts
up on orbit.

29
00:01:09,168 --> 00:01:11,637
Starting with commander
Kevin Ford;

30
00:01:11,637 --> 00:01:14,273
he started his day off
working on the station's waste

31
00:01:14,273 --> 00:01:15,941
and hygiene compartment
also known

32

00:01:15,941 --> 00:01:17,977
as the toilet on
board the station.

33
00:01:17,977 --> 00:01:20,212
He's doing some routine
replacement work

34
00:01:20,212 --> 00:01:23,449
on the urine receptacle
and also its insert filter.

35
00:01:23,449 --> 00:01:25,751
So he'll be removing
those and replacing them.

36
00:01:25,751 --> 00:01:28,954
And then a little bit later
today he'll be working

37
00:01:28,954 --> 00:01:31,490
on the high rate
communication system.

38
00:01:31,490 --> 00:01:33,692
He'll be removing a
few of the remnants

39
00:01:33,692 --> 00:01:37,363
of the older medium rate
communications outage recorder,

40
00:01:37,363 --> 00:01:41,367
installing a new closeout panel
over that, a new interface panel

41
00:01:41,367 --> 00:01:45,471
as they prepare to do some
more work a little bit later

42

00:01:45,471 --> 00:01:47,540
in this increment on that
high rate comm system,

43
00:01:47,540 --> 00:01:49,808
doing more some more upgrades.

44
00:01:49,808 --> 00:01:50,910
Moving on.

45
00:01:50,910 --> 00:01:52,444
Russian cosmonaut Oleg
Novitskiy is inside

46
00:01:52,444 --> 00:01:55,948
of the Russian service module
doing some repair work that's

47
00:01:55,948 --> 00:01:57,716
been going on over
the past month or so

48
00:01:57,716 --> 00:02:00,853
on the interior panels
inside of there.

49
00:02:00,853 --> 00:02:03,722
He'll also be doing
some Earth observations

50
00:02:03,722 --> 00:02:06,125
for the Russian Seiner
investigation.

51
00:02:06,125 --> 00:02:09,795
It's an ongoing look at the
various world oceans searching

52
00:02:09,795 --> 00:02:13,432
for bio productive water areas

both for commercial fishing

53
00:02:13,432 --> 00:02:15,401
and also scientific research.

54
00:02:15,401 --> 00:02:20,472
Aside from that he'll
be doing a Russian life

55
00:02:20,472 --> 00:02:22,141
on board the International
Space Station,

56
00:02:22,141 --> 00:02:23,709
doing some photo
and video for that.

57
00:02:23,709 --> 00:02:27,646
He'll be joined in that by his
two fellow Russian cosmonauts.

58
00:02:27,646 --> 00:02:29,381
The three have been doing that.

59
00:02:29,381 --> 00:02:32,551
It's an ongoing look at
life on board the station

60
00:02:32,551 --> 00:02:35,454
from the Russian side.

61
00:02:35,454 --> 00:02:37,690
Evgeny assisting him in that --

62
00:02:37,690 --> 00:02:39,024
Evgeny Tarelkin another one

63
00:02:39,024 --> 00:02:41,727
of our Russian cosmonauts

onboard the station.

64
00:02:41,727 --> 00:02:45,164
Evgeny will also be assisting
Novitskiy with those repairs

65
00:02:45,164 --> 00:02:48,167
of those interior panels
inside of the service module.

66
00:02:48,167 --> 00:02:49,935
Also he'll be doing a study

67
00:02:49,935 --> 00:02:52,905
of the cardiovascular
system today using one

68
00:02:52,905 --> 00:02:55,441
of the exercise bikes
on board the station

69
00:02:55,441 --> 00:02:57,776
over in the Russian
segment known as the VELO.

70
00:02:57,776 --> 00:03:02,047
So he'll be exercising and then
measuring his heart capacity

71
00:03:02,047 --> 00:03:04,116
and how it responds to the load.

72
00:03:04,116 --> 00:03:06,852
It's one of the many
ongoing experiments looking

73
00:03:06,852 --> 00:03:09,922
at the human body as it's
exposed to microgravity

74
00:03:09,922 --> 00:03:12,224
for long periods of time.

75
00:03:12,224 --> 00:03:15,027
Moving on our third Russian
cosmonaut Roman Romanenko doing

76
00:03:15,027 --> 00:03:18,230
a lot of housecleaning
work today, replacing a few

77
00:03:18,230 --> 00:03:20,666
of the dust filters
and collectors inside

78
00:03:20,666 --> 00:03:23,669
of the Russian segment and also
clearing out some the air ducts

79
00:03:23,669 --> 00:03:26,572
and the fan screens as
they consistently have

80
00:03:26,572 --> 00:03:29,108
to keep this air
revitalization system clean

81
00:03:29,108 --> 00:03:31,076
to ensure a safe
breathing environment

82
00:03:31,076 --> 00:03:33,145
for all their crew members.

83
00:03:33,145 --> 00:03:36,482
He'll also be doing a Russian
Earth observation experiment

84
00:03:36,482 --> 00:03:39,051

known as the Uragan
which is done

85
00:03:39,051 --> 00:03:41,687
by recording various
catastrophic phenomenon

86
00:03:41,687 --> 00:03:45,557
as they develop in
the hopes of create

87
00:03:45,557 --> 00:03:48,160
in the International Space
Station and making it

88
00:03:48,160 --> 00:03:52,631
into a permanent monitoring
where any, monitoring post

89
00:03:52,631 --> 00:03:57,269
where any natural and man-made
disasters are forecasted.

90
00:03:57,269 --> 00:04:01,006
Then our Canadian space agency
astronaut Chris Hadfield today

91
00:04:01,006 --> 00:04:02,908
working on two pretty
interesting experiments.

92
00:04:02,908 --> 00:04:07,413
The first of which of the
Binary Colloidal Alloy Test C1.

93
00:04:07,413 --> 00:04:11,450
He'll be initializing that
and taking some photography

94
00:04:11,450 --> 00:04:12,851

of some of the samples.

95
00:04:12,851 --> 00:04:15,888
That's a look at studying
nanoscale particles

96
00:04:15,888 --> 00:04:20,159
that are dispersed in liquid
known as colloidal suspension.

97
00:04:20,159 --> 00:04:22,428
These colloids are
commonly found in a lot

98
00:04:22,428 --> 00:04:25,431
of commercial commodities down
here on Earth such as paint,

99
00:04:25,431 --> 00:04:29,201
electronic polishing compounds
and also food products.

100
00:04:29,201 --> 00:04:32,004
He'll also be working with
the InSPACE-3 experiment.

101
00:04:32,004 --> 00:04:34,540
That's a look at the
fundamental behavior

102
00:04:34,540 --> 00:04:38,344
of different magnetic colloidal
fluids as they're influenced

103
00:04:38,344 --> 00:04:40,579
by varying magnetic fields.

104
00:04:40,579 --> 00:04:42,014
These materials are
used in a lot

105
00:04:42,014 --> 00:04:45,351
of vibration dampening systems
in very large-scale projects

106
00:04:45,351 --> 00:04:47,853
like bridges and buildings
down here on Earth.

107
00:04:47,853 --> 00:04:49,855
So a microscopic experiment

108
00:04:49,855 --> 00:04:52,257
up on the station have been
some pretty wide reaching

109
00:04:52,257 --> 00:04:56,061
implications back down
here on the surface.

110
00:04:56,061 --> 00:04:59,798
Then our final Expedition 34
crew member Tom Marshburn,

111
00:04:59,798 --> 00:05:02,201
another NASA astronaut,
working inside

112
00:05:02,201 --> 00:05:04,970
of the cell biology
experiment facility

113
00:05:04,970 --> 00:05:07,106
in the Japanese experiment
module.

114
00:05:07,106 --> 00:05:09,541
He's installing a new
centrifuge inside of that.

115
00:05:09,541 --> 00:05:13,645
It's, that cell biology
experiment facility,

116
00:05:13,645 --> 00:05:17,449
it's a Japanese aerospace
agency subrack used

117
00:05:17,449 --> 00:05:20,285
for studying various
life science experiments

118
00:05:20,285 --> 00:05:23,389
such as cultivating cells and
also growing plants inside

119
00:05:23,389 --> 00:05:25,524
of the Japanese experiment
module.

120
00:05:25,524 --> 00:05:28,127
Here you can see some video
a little earlier today

121
00:05:28,127 --> 00:05:30,162
as Marshburn was
working on that,

122
00:05:30,162 --> 00:05:33,265
and some of his other duties
for the day include work inside

123
00:05:33,265 --> 00:05:35,567
of the water recovery
system, filling up a few