1
00:00:02,110 --> 00:00:03,010
Good morning.

2
00:00:03,010 --> 00:00:04,570
This is Mission Control Houston.

3
00:00:04,570 --> 00:00:10,570
Thank you for joining us for today's edition
of ISS update this Wednesday, February 8.

4
00:00:10,570 --> 00:00:14,810
Now looking at live view inside the
International Space Station flight control room

5
00:00:14,810 --> 00:00:17,990
where the team here has been monitoring
the systems aboard the station

6
00:00:17,990 --> 00:00:22,880
and supporting today's activities
of the Expedition 30 crew members.

7
00:00:22,880 --> 00:00:27,320
Flight director Ron Spencer is
leading the Orbit Two team seen here

8
00:00:27,320 --> 00:00:29,630
in the station flight control room today.

9
00:00:29,630 --> 00:00:34,400
Here in the blue shirt on the right-hand
side with Lucia McCullough there next

10
00:00:34,400 --> 00:00:36,680
to him on the left serving as Capcom.

11
00:00:36,680 --> 00:00:45,440
She's responsible for relaying all
ground messages up to the crew.

12
00:00:45,440 --> 00:00:47,340
On orbit the six crew members well

13
00:00:47,340 --> 00:00:51,920
into their busy work day aboard the station
include NASA astronaut and Commander

14
00:00:51,920 --> 00:00:56,780
of the complex Dan Burbank and Flight
Engineers and cosmonauts Anton Shkaplerov

15
00:00:56,780 --> 00:01:02,560
and Anatoly Ivanishin there on the left-hand
side, as well as NASA astronaut Don Pettit,

16
00:01:02,560 --> 00:01:08,020
cosmonaut Oleg Kononenko and European
Space Agency astronaut Andre Kuipers there

17
00:01:08,020 --> 00:01:09,540
on the right.

18
00:01:10,640 --> 00:01:13,130
Commander Burbank, Shkaplerov
and Ivanishin launched

19
00:01:13,130 --> 00:01:15,660
to the orbiting complex aboard
a Soyuz spacecraft

20
00:01:15,660 --> 00:01:19,020
as the Expedition 29 crew last November.

21
00:01:19,020 --> 00:01:21,660
They docked to the Poisk module
of the space station a few days

22
00:01:21,660 --> 00:01:24,160

after their launch on November 16.

23
00:01:24,160 --> 00:01:28,270
Burbank then assumed command of the
station only a week after they arrived.

24
00:01:28,270 --> 00:01:32,030
Today he and his crew members complete
their 88th consecutive day in space

25
00:01:32,030 --> 00:01:35,860
and have reached the halfway mark of their
stay aboard the space station with the return

26
00:01:35,860 --> 00:01:40,660
to Earth later this spring on April 30.

27
00:01:40,660 --> 00:01:45,200
Meanwhile, Pettit, Kononenko and
Kuipers launched aboard Soyuz TMA-03M

28
00:01:45,200 --> 00:01:51,190
from the Baikonur Cosmodrome in Kazakhstan on
December 21 and they began their two-day chase

29
00:01:51,190 --> 00:01:54,060
on orbit to catch up to the
International Space Station.

30
00:01:54,060 --> 00:01:56,600
With their Soyuz now docked
to the Rassvet module,

31
00:01:56,600 --> 00:02:01,050
they will complete their 50th
consecutive day in space today.

32
00:02:02,210 --> 00:02:05,110
The space station with its
crew aboard is now flying

33
00:02:05,110 --> 00:02:09,200
at an altitude of about 240 statute miles.

34
00:02:09,200 --> 00:02:12,120
The orbiting facility is
making a North Eastern track

35
00:02:12,120 --> 00:02:15,470
across the South Atlantic Ocean
before a pass across Africa.

36
00:02:15,470 --> 00:02:23,360
Now in the middle of week 11 of its mission,
the Expedition 30 crew continues to tend

37
00:02:23,360 --> 00:02:27,630
to a variety of science experiments that take
advantage of the microgravity environment,

38
00:02:27,630 --> 00:02:31,040
performed regular maintenance to the
orbital home and also continued preparations

39
00:02:31,040 --> 00:02:34,290
for next week's spacewalk outside the complex.

40
00:02:36,060 --> 00:02:39,950
Today station Commander Dan Burbank is
working with a science experiment known

41
00:02:39,950 --> 00:02:45,800
as Binary Colloidal Alloy Test, or BCAT-6,
that looks at how gas liquid separator

42
00:02:45,800 --> 00:02:48,180
and come together in microgravity.

43
00:02:48,180 --> 00:02:50,650

This study could lead to
the development of better,

44
00:02:50,650 --> 00:02:54,750
less expensive household
products, food and medicine.

45
00:02:55,820 --> 00:02:58,920
Flight Engineer Don Pettit will
lend a hand in this experiment

46
00:02:58,920 --> 00:03:04,090
after putting away equipment used for
an earlier session of the VO2max study.

47
00:03:04,090 --> 00:03:08,940
That measures the crew members'
aerobic capacity during spaceflight.

48
00:03:08,940 --> 00:03:16,240
And Burbank and Pettit also conducted additional
testing of the COTS UHF communication unit

49
00:03:16,240 --> 00:03:20,120
that will serve as a key rendezvous tool to
help with the maiden capture and berthing

50
00:03:20,120 --> 00:03:24,250
of the SpaceX Dragon spacecraft
once it is launched.

51
00:03:24,250 --> 00:03:28,540
Meanwhile in the Russian side of the house
Anton Shkaplerov is busy replacing a few smoke

52
00:03:28,540 --> 00:03:33,680
detectors in the Rassvet module while Anatoly
Ivanishin tends to Earth observation photography

53
00:03:33,680 --> 00:03:37,970

for long-term geophysics
research known as Uragan.

54
00:03:37,970 --> 00:03:42,530
Commander Burbank and Don Pettit took some
time out just before today's update hour

55
00:03:42,530 --> 00:03:44,940
to answer YouTube questions from the public.

56
00:03:44,940 --> 00:03:49,260
The pair answered questions like how a
helium filled balloon floats in space

57
00:03:49,260 --> 00:03:54,480
and on Earth observations of
the planet's natural changes.

58
00:03:54,480 --> 00:03:56,900
Pettit also earlier talked
with high school students

59
00:03:56,900 --> 00:04:00,540
at Inuksuk High School in Canada via ham radio.

60
00:04:00,540 --> 00:04:06,790
Earlier this morning aboard the
International Space Station, Commander Burbank

61
00:04:06,790 --> 00:04:11,100
and Andre Kuipers collected blood and
urine samples as part of the Sodium Loading

62
00:04:11,100 --> 00:04:15,910
in microgravity study that looks at fluid and
salt retention in the body during spaceflight.

63
00:04:15,910 --> 00:04:20,390
Kuipers also participated in the Lego
bricks study that demonstrates challenges

64
00:04:20,390 --> 00:04:24,970
in building things in the microgravity
environment of space, while Pettit spent much

65
00:04:24,970 --> 00:04:32,330
of his morning setting up for and assessing his
personal aerobic capacity for the VO2max study.

66
00:04:32,330 --> 00:04:36,410
Anton Shkaplerov and Oleg Kononenko
continued their preparations

67
00:04:36,410 --> 00:04:39,530
for next week's spacewalk on February 16.

68
00:04:39,530 --> 00:04:44,320
The pair were busy working with the
Russian Orlan spacesuits they will wear

69
00:04:44,320 --> 00:04:47,870
for the 5 1/2 hour excursion
outside the complex.

70
00:04:47,870 --> 00:04:52,440
The duo spent some time adjusting the height
of their spacesuits and performed a leak check

71
00:04:52,440 --> 00:04:56,190
and valve test to the suits interface unit.

72
00:04:56,190 --> 00:04:59,790
Commander Burbank with his five
crew members also participated

73
00:04:59,790 --> 00:05:04,990
in an onboard training exercise to
review a new respirator purge technique

74

00:05:04,990 --> 00:05:08,810
of the onboard emergency mask.

75
00:05:08,810 --> 00:05:12,580
Shown here the crew is undergoing
that training drill.

76
00:05:12,580 --> 00:05:17,360
The crew periodically undergoes onboard training
drills to stay current on safety measures

77
00:05:17,360 --> 00:05:23,570
in the event a real emergency should
occur and those emergency mask be needed.

78
00:05:23,570 --> 00:05:27,920
Later today Commander Burbank and Andre
Kuipers will collect additional samples

79
00:05:27,920 --> 00:05:30,640
for the ongoing fluid and water retention study.

80
00:05:30,640 --> 00:05:35,780
Burbank and Pettit will spend some time on
entries to their individual Journals study.

81
00:05:35,780 --> 00:05:37,770
The commander also will participate

82
00:05:37,770 --> 00:05:40,780
in an Inventory Management System
conference with the ground.

83
00:05:40,780 --> 00:05:47,030
At the day's end each crew member will have
participated in his daily two-hour exercise

84
00:05:47,030 --> 00:05:50,970
to maintain physical fitness and mitigate
the weakening of muscle and bone loss

85
00:05:50,970 --> 00:05:55,250
that is experienced during
long-duration spaceflight.

86
00:05:55,250 --> 00:05:59,600
The Expedition 30 crew will then participate
in its final daily planning conference

87
00:05:59,600 --> 00:06:03,710
with ground controllers around the
world to prepare for another day

88
00:06:03,710 --> 00:06:07,350
of busy activity before entering
its presleep period.