1
00:00:01,510 --> 00:00:04,030
Good morning, this is Mission Control Houston.

2
00:00:04,030 --> 00:00:08,630
Thank you for joining us for today's
ISS Update this Wednesday, September 21.

3
00:00:08,630 --> 00:00:12,190
Joining us now live inside the International
Space Station flight control room

4
00:00:12,190 --> 00:00:15,340
where the team here has been monitoring
the systems aboard the station

5
00:00:15,340 --> 00:00:19,700
and supporting the day's activities
of the Expedition 29 crew members.

6
00:00:19,700 --> 00:00:23,390
Flight Director Brian Smith is leading the
team here in the station flight control room,

7
00:00:23,390 --> 00:00:26,500
shown here in the blue shirt on
the right hand side of your screen,

8
00:00:26,500 --> 00:00:30,620
and next to him is Anna Fisher
there who is serving as Capcom,

9
00:00:30,620 --> 00:00:34,220
relaying all the ground messages up to the crew.

10
00:00:34,220 --> 00:00:38,200
The three crew members currently aboard the
station include NASA astronaut and commander

11
00:00:38,200 --> 00:00:43,050

of the complex Mike Fossum and his crewmates
and flight engineers cosmonaut Sergei Volkov

12
00:00:43,050 --> 00:00:45,840
and Japanese astronaut Satoshi Furukawa.

13
00:00:45,840 --> 00:00:49,360
Commander Fossum, Volkov and
Furukawa docked to the Rassvet module

14
00:00:49,360 --> 00:00:55,590
of the orbiting complex this summer on June
9 aboard their Soyuz TMA-02M spacecraft.

15
00:00:55,590 --> 00:01:00,270
They completed their 100th consecutive
day in space one week ago from today.

16
00:01:00,270 --> 00:01:03,800
Meanwhile astronaut Dan Burbank
and cosmonauts Anton Shkaplerov

17
00:01:03,800 --> 00:01:08,750
and Anatoly Ivanishin are scheduled to join
the crew of three there on the space station

18
00:01:08,750 --> 00:01:14,850
after their launch on November 14 and
make up the full crew of Expedition 29.

19
00:01:14,850 --> 00:01:19,260
The space station with its three crew
members onboard are now flying at an altitude

20
00:01:19,260 --> 00:01:26,240
of about 238 statute miles and just made their
way across the southern tip of the western coast

21
00:01:26,240 --> 00:01:31,030
of Africa on a southeastern

track over the southern ocean.

22
00:01:33,570 --> 00:01:38,780
On orbit the Expedition crew members remain busy
to support ongoing research into the effects

23
00:01:38,780 --> 00:01:42,790
of microgravity on the human body,
biology, physics and materials,

24
00:01:42,790 --> 00:01:46,940
as well as perform regular maintenance and
upkeep of their orbital home away from home.

25
00:01:46,940 --> 00:01:52,290
After the crew's wakeup at 1 a.m. Central
time today, the Expedition crew participated

26
00:01:52,290 --> 00:01:55,760
in the first of two daily planning
conferences with ground controllers

27
00:01:55,760 --> 00:01:57,950
at mission control centers around the world.

28
00:01:57,950 --> 00:02:00,090
To kick off the day reviewing
the day's activities

29
00:02:00,090 --> 00:02:02,480
and planning for the next set of tasks.

30
00:02:02,480 --> 00:02:06,160
The crew will participate in another daily
planning conference just before entering its

31
00:02:06,160 --> 00:02:07,590
pre-sleep period.

32

00:02:07,590 --> 00:02:14,640
The crew is scheduled to go to bed
at 4:30 p.m. Central time today.

33
00:02:14,640 --> 00:02:18,650
During today's ISS Update hour
Commander Mike Fossum is working

34
00:02:18,650 --> 00:02:24,990
with an ongoing space experiment known
as BCAT, or Binary Colloidal Alloy Test,

35
00:02:24,990 --> 00:02:28,900
that may lead to new developments
in computers and advanced optics.

36
00:02:28,900 --> 00:02:33,130
Meanwhile Flight Engineer Satoshi Furukawa
will be working to install a new router

37
00:02:33,130 --> 00:02:37,930
for the onboard computer network that enables
the crew to receive messages from the ground,

38
00:02:37,930 --> 00:02:41,700
e-mail, activity updates to
their daily timeline and access

39
00:02:41,700 --> 00:02:44,460
to the onboard Internet protocol phone.

40
00:02:44,460 --> 00:02:48,030
Earlier this morning Commander Mike
Fossum had collected biology samples

41
00:02:48,030 --> 00:02:50,670
as part of a microbiology evaluation.

42
00:02:50,670 --> 00:02:55,020
He then transferred data for downlink to

the ground on a water quality analysis

43
00:02:55,020 --> 00:02:58,870
that was previously conducted on
the station's potable water supply.

44
00:02:58,870 --> 00:03:01,700
Fossum also exchanged a sample cartridge

45
00:03:01,700 --> 00:03:06,820
of the Materials Science Laboratory's
Solidification and Quench Furnace.

46
00:03:08,610 --> 00:03:12,360
Flight Engineer Sergei Volkov
performed some maintenance

47
00:03:12,360 --> 00:03:15,830
to a Russian experiment involving
plants onboard the station.

48
00:03:15,830 --> 00:03:20,150
He also conducted a physical fitness
evaluation, performed regular maintenance

49
00:03:20,150 --> 00:03:24,530
to the Russian environment and life
support system also known as Sozh

50
00:03:24,530 --> 00:03:28,870
and conducted an oxygen repress from
the docked Progress supply ship.

51
00:03:28,870 --> 00:03:32,880
Meanwhile Furukawa loaded new
software and configured a laptop

52
00:03:32,880 --> 00:03:35,430
that will be used for space station experiments.

53
00:03:35,430 --> 00:03:40,860
He also conducted a Japanese experiment that
looks at the bubbling behavior of green tea made

54
00:03:40,860 --> 00:03:45,840
in microgravity, followed by a
traditional Japanese tea ceremony in space.

55
00:03:47,090 --> 00:03:49,410
Later today Commander Fossum will continue work

56
00:03:49,410 --> 00:03:52,040
on the Binary Colloidal Alloy
science experiment,

57
00:03:52,040 --> 00:03:54,950
taking photos of formed crystals
suspended in fluids

58
00:03:54,950 --> 00:03:57,870
and performing further sample
tests with that experiment.

59
00:03:57,870 --> 00:04:02,970
Furukawa will complete the installation
of the new router and laptop system.

60
00:04:02,970 --> 00:04:07,700
He also will conduct an inspection of
on-orbit bicycle and also check the status

61
00:04:07,700 --> 00:04:10,900
of the Commercial Generic
Bioprocessing Apparatus

62
00:04:10,900 --> 00:04:16,230
which houses a variety of
ongoing science experiments.

63

00:04:16,230 --> 00:04:19,160
To mitigate the effects of
long-duration spaceflight

64
00:04:19,160 --> 00:04:23,060
on their bodies the crew members also will
have staggered their regular two hours