



1

00:00:02,090 --> 00:00:04,430

Good morning, this is Mission Control Houston.

2

00:00:04,430 --> 00:00:08,960

Thank you for joining us for today's
ISS update this Monday, December 19.

3

00:00:08,960 --> 00:00:13,590

We're now looking at live view inside the
International Space Station flight control room

4

00:00:13,590 --> 00:00:16,570

where the team here has been monitoring
the systems aboard the station

5

00:00:16,570 --> 00:00:22,420

and supporting today's activities
of the Expedition 30 crew members.

6

00:00:22,420 --> 00:00:27,170

Leading the team here in the station flight
control room today is flight director Mike

7

00:00:27,170 --> 00:00:31,080

Lammers, seen here on the
right-hand side of your screen

8

00:00:31,080 --> 00:00:34,520

with Shannon Lucid there next
to him serving as Capcom.

9

00:00:34,520 --> 00:00:39,800

She's responsible for relaying all
ground messages up to the crew.

10

00:00:39,800 --> 00:00:42,750

Aboard the orbiting complex
station Commander Dan Burbank

11

00:00:42,750 --> 00:00:47,320
and Flight Engineers Anton Shkaplerov and
Anatoly Ivanishin begin their fifth week

12
00:00:47,320 --> 00:00:53,320
as the Expedition 30 crew and
their sixth week in space.

13
00:00:53,320 --> 00:00:56,100
Commander Burbank, Shkaplerov
and Ivanishin launched

14
00:00:56,100 --> 00:01:01,700
to the orbiting complex aboard their Soyuz
spacecraft as the Expedition 29 crew last month.

15
00:01:01,700 --> 00:01:04,530
They docked to the Poisk module
of the space station two days

16
00:01:04,530 --> 00:01:07,950
after their launch on November 15.

17
00:01:07,950 --> 00:01:11,820
Burbank then assumed command of the
station a week after the trio had arrived.

18
00:01:11,820 --> 00:01:18,250
Today he and his crew members complete
their 36th consecutive day in space.

19
00:01:18,250 --> 00:01:23,730
Meanwhile back on Earth the Expedition
30 crew -- NASA astronaut Don Pettit,

20
00:01:23,730 --> 00:01:29,630
Russian cosmonaut Oleg Kononenko and European
Space Agency astronaut Andre Kuipers -

21
00:01:29,630 --> 00:01:33,620

who are scheduled to launch from
Baikonur in Kazakhstan this week Wednesday

22

00:01:33,620 --> 00:01:40,660

at 7:16 a.m. central time 8:16 a.m. Eastern
time, are in their final days of preparations

23

00:01:40,660 --> 00:01:44,420

to join their crewmates on the
International Space Station.

24

00:01:44,420 --> 00:01:50,140

Today their Soyuz TMA-03M spacecraft rolled
out the pad from which it will launch

25

00:01:50,140 --> 00:01:53,400

and now stands poised for the
scheduled liftoff this week.

26

00:01:53,400 --> 00:01:58,900

The trio there in Baikonur will join the
crew aboard the orbiting complex on Friday

27

00:01:58,900 --> 00:02:03,600

when their Soyuz spacecraft docks
after two day voyage to the station.

28

00:02:03,600 --> 00:02:06,070

Live coverage of the Soyuz launch docking,

29

00:02:06,070 --> 00:02:10,100

docking and hatch opening will
be aired here on NASA television.

30

00:02:10,100 --> 00:02:15,340

That launch coverage will begin on
Wednesday morning at 6:30 a.m. central time.

31

00:02:15,340 --> 00:02:18,480

The space station with its

crew aboard is now flying

32

00:02:18,480 --> 00:02:23,420

at an altitude of about 240 statute miles.

33

00:02:23,420 --> 00:02:29,580

The orbiting facility is making a night pass on a southeastern track,

34

00:02:29,580 --> 00:02:35,840

and a few minutes ago it made a pass just across Kazakhstan on an eastern track which is the site

35

00:02:35,840 --> 00:02:38,690

of the next Soyuz scheduled for liftoff on Wednesday.

36

00:02:38,690 --> 00:02:43,740

The station is now on that southeastern track making its way across Mongolia,

37

00:02:43,740 --> 00:02:46,900

eventually China and the tip of South Korea.

38

00:02:46,900 --> 00:02:51,260

The Expedition crew kicked off their week this morning with the first

39

00:02:51,260 --> 00:02:52,980

of two daily planning conferences.

40

00:02:52,980 --> 00:02:56,680

This as a couple hours after wake up at midnight central time.

41

00:02:56,680 --> 00:03:00,120

Planning conferences are held with the ground controllers at mission control centers

42

00:03:00,120 --> 00:03:05,150
around the world to review the day's
activities and plan for the next set of tasks.

43
00:03:05,150 --> 00:03:08,970
The crew will participate in another daily
planning conference just before entering its

44
00:03:08,970 --> 00:03:13,440
pre-sleep period a couple hours
after today's ISS update hour.

45
00:03:13,440 --> 00:03:17,530
The crew is then scheduled go to
bed at 3:30 p.m. central time.

46
00:03:17,530 --> 00:03:22,250
During today's ISS update hour, Commander Dan
Burbank will have just wrapped up his work

47
00:03:22,250 --> 00:03:26,840
with the control panel updated the
onboard COTS UHF communications unit

48
00:03:26,840 --> 00:03:29,140
that will enable communication
between the space station

49
00:03:29,140 --> 00:03:32,770
and future demo cargo delivery spacecraft.

50
00:03:32,770 --> 00:03:36,590
Commander Burbank is now tending
to a couple of science facilities.

51
00:03:36,590 --> 00:03:40,400
He will update the software for the
Sodium Loading In Microgravity experiment

52
00:03:40,400 --> 00:03:45,370

that studies fluids and salt retention
in the body during spaceflight.

53
00:03:45,370 --> 00:03:50,070
He also will activate the Microgravity
Science Glovebox located in the laboratory

54
00:03:50,070 --> 00:03:54,980
that provides a sealed environment for
conducting science and technology experiments,

55
00:03:54,980 --> 00:03:59,110
and later during the hour he will stow away
the MARES hardware that is used in research

56
00:03:59,110 --> 00:04:04,750
on human physiology to better understand the
effects of microgravity on the muscular system.

57
00:04:06,020 --> 00:04:09,490
Meanwhile Flight Engineer Anton
Shkaplerov is performing maintenance

58
00:04:09,490 --> 00:04:15,240
to the service module panels while Anatoly
Ivanishin worked alongside him to remove

59
00:04:15,240 --> 00:04:18,580
and replace storage batteries in
the Russian side of the house.

60
00:04:18,580 --> 00:04:22,500
Earlier this morning Commander Dan
Burbank performed a water sample analysis

61
00:04:22,500 --> 00:04:26,530
of the onboard Water Recovery System
and transferred the data from the TOCA,

62
00:04:26,530 --> 00:04:31,620

the Total Organic Carbon Analyzer that was used to analyze water that has been processed

63

00:04:31,620 --> 00:04:34,680

and purified, ensuring it is safe for consumption.

64

00:04:34,680 --> 00:04:39,210

He then spent some of his morning working with the fluid and combustion facility

65

00:04:39,210 --> 00:04:42,940

that houses two pallet racks that enables research

66

00:04:42,940 --> 00:04:45,670

into the physics and combustion science.

67

00:04:45,670 --> 00:04:51,420

He set up for the Preliminary Advanced Colloids Experiment known as PACE to be conducted

68

00:04:51,420 --> 00:04:57,420

with the Fluids Integrated Rack that looks at how fluid the behave in microgravity.

69

00:04:59,470 --> 00:05:05,550

Burbank also had spent the morning working on the Treadmill Kinematics experiment.

70

00:05:05,550 --> 00:05:09,520

He then gathered some of the exercise equipment onboard in advance of the arrival

71

00:05:09,520 --> 00:05:12,840

of the remainder of Expedition crew members this week.

72

00:05:12,840 --> 00:05:15,400

The commander also took some

time this morning to talk

73

00:05:15,400 --> 00:05:18,420
to middle school students
via ham radio in Italy.

74

00:05:18,420 --> 00:05:23,390
Flight Engineers Anton Shkaplerov and Anatoly
Ivanishin worked together to unpack items

75

00:05:23,390 --> 00:05:27,060
that were brought up on the
Progress cargo ship last month.

76

00:05:27,060 --> 00:05:31,380
Shkaplerov performed regular maintenance to the
Russian life support systems aboard the complex

77

00:05:31,380 --> 00:05:34,930
and also began a 24-hour
electrocardiogram monitoring

78

00:05:34,930 --> 00:05:39,310
that reads his in-motion heart function.

79

00:05:39,310 --> 00:05:43,540
Meanwhile Ivanishin had spent some time this
morning cleaning out, changing out the lamps

80

00:05:43,540 --> 00:05:48,350
and fuses of lighting panels in the
Russian segment of the space station.

81

00:05:48,350 --> 00:05:49,540
And later today.

82

00:05:49,540 --> 00:05:54,490
Shkaplerov will tend to a world ocean
observation study known as Seiner,

83

00:05:54,490 --> 00:05:58,080

looks at the world's bio
productive ocean areas from space.

84

00:05:58,080 --> 00:06:02,440

By the end of their day, the three station crew
members will have completed their two hours

85

00:06:02,440 --> 00:06:03,480

of daily exercise.

86

00:06:03,480 --> 00:06:06,830

They will perform some evening
prep work and wind down their day

87

00:06:06,830 --> 00:06:09,110

with a meal time, hygiene and rest.