1
00:00:01,890 --> 00:00:03,800
Good morning and welcome
to Mission Control Houston

2
00:00:03,800 --> 00:00:06,110
and the International Space Station update.

3
00:00:06,110 --> 00:00:10,660
We're joining the International Space
Station flight control team on Leap Day here

4
00:00:10,660 --> 00:00:14,430
in the space station flight control room
at Mission Control Center in Houston.

5
00:00:14,430 --> 00:00:19,010
The Orbit Two team is on console at this
time led by flight director Paul Dye

6
00:00:19,010 --> 00:00:20,970
with Jeremy Hansen in the Capcom seat.

7
00:00:20,970 --> 00:00:26,230
You can see Dye here in the white
shirt next to Hansen in the blue shirt.

8
00:00:28,050 --> 00:00:31,530
Onboard the International Space Station
the Expedition 30 crew has been awake

9
00:00:31,530 --> 00:00:34,150
since midnight central time
and they're now more halfway...

10
00:00:34,150 --> 00:00:36,070
more than halfway through their day.

11
00:00:36,070 --> 00:00:40,520
They are US Commander Dan Burbank

and US Flight Engineer Don Pettit,

12
00:00:40,520 --> 00:00:45,370
European Flight Engineer Andre Kuipers and
Russian Flight Engineers Oleg Kononenko,

13
00:00:45,370 --> 00:00:48,910
Anton Shkaplerov and Anatoly Ivanishin.

14
00:00:48,910 --> 00:00:52,000
Burbank, Shkaplerov and Ivanishin
launched to the station

15
00:00:52,000 --> 00:00:57,020
in their Russian Soyuz TMA-22 vehicle on
November 13 and docked to the space station

16
00:00:57,020 --> 00:01:01,110
on November 15, so they're
working on their 108th day in space

17
00:01:01,110 --> 00:01:04,580
and their 106th day at the space station.

18
00:01:04,580 --> 00:01:11,270
Kononenko, Kuipers and Pettit followed them
into space on their Soyuz TMA-03M on December 21

19
00:01:11,270 --> 00:01:13,610
and arrived to station on December 23.

20
00:01:13,610 --> 00:01:18,930
They're working on their 71st day in space
and their 69th day at the space station.

21
00:01:25,810 --> 00:01:32,550
The crew is currently 238 miles above
the Indian Sea just off the coast

22

00:01:32,550 --> 00:01:36,840
of India heading southeast
toward the coast of Australia.

23
00:01:36,840 --> 00:01:39,750
Their average altitude is a little
higher today than it was yesterday,

24
00:01:39,750 --> 00:01:44,560
thanks to the successful reboost
performed earlier this morning.

25
00:01:44,560 --> 00:01:49,090
Even though there's plenty of time left in both
segments of the crew's stay, there's work going

26
00:01:49,090 --> 00:01:50,700
on now to get ready for their departure.

27
00:01:50,700 --> 00:01:55,030
To get into the correct position for
the undocking of Burbank, Shkaplerov

28
00:01:55,030 --> 00:02:00,450
and Ivanishin's Soyuz, the Zvezda module's
thrusters were fired earlier this morning

29
00:02:00,450 --> 00:02:05,730
for 1 minute and 16 seconds
at 4:12 a.m. central time.

30
00:02:05,730 --> 00:02:12,120
That increased the stations
altitude to 254 x 232 miles.

31
00:02:13,550 --> 00:02:18,060
Besides that Soyuz undocking, that also puts
the station in a good place for the arrival

32
00:02:18,060 --> 00:02:22,650

of the next Progress and the three crew
members that will take Burbank, Shkaplerov

33
00:02:22,650 --> 00:02:29,350
and Ivanishin's place in their Soyuz; that is
Joe Acaba, Gennady Padalka and Sergei Revin.

34
00:02:29,350 --> 00:02:30,660
You can see here.

35
00:02:30,660 --> 00:02:36,130
They're scheduled to launch in May in their
Soyuz TMA-04M that's actually just arrived

36
00:02:36,130 --> 00:02:40,860
in Baikonur, Kazakhstan for
its final testing on Monday.

37
00:02:40,860 --> 00:02:46,150
We have a photo that arrival at the
Baikonur Cosmodrome to show you.

38
00:02:46,150 --> 00:02:53,420
That again was taken on Monday
in Baikonur, Kazakhstan.

39
00:02:53,420 --> 00:02:56,990
Of course that's still plenty of
work to be done in the meantime.

40
00:02:56,990 --> 00:03:00,960
Today the crew had a large variety of
experiments and maintenance going on.

41
00:03:00,960 --> 00:03:05,650
Commander Dan Burbank was again working on
the ongoing update of the station's computers

42
00:03:05,650 --> 00:03:11,970
with the Enhanced Processor and Integrated

Communications or EPIC as it's called.

43
00:03:11,970 --> 00:03:16,330
Flight Engineer Don Pettit is in the
process of actually performing the checkout

44
00:03:16,330 --> 00:03:20,380
of the station's combustion chamber that
he spent time yesterday getting ready for.

45
00:03:20,380 --> 00:03:22,600
That facility's used for microgravity research

46
00:03:22,600 --> 00:03:27,610
on droplet solid fuel or
gaseous fuel combustion.

47
00:03:27,610 --> 00:03:33,790
He also did a camera checkout of BCAT-6
or Binary Colloidal Alloy Test number six,

48
00:03:33,790 --> 00:03:39,020
which looks at how liquids and gases interact
with each other in mixtures in microgravity.

49
00:03:39,020 --> 00:03:43,310
Meanwhile, Flight Engineer Andre Kuipers
did some work with the Kubik 3 experiment.

50
00:03:43,310 --> 00:03:47,300
Kubik is a small temperature-controlled
incubator or cooler

51
00:03:47,300 --> 00:03:49,060
with removable inserts designed

52
00:03:49,060 --> 00:03:55,430
for self-contained automatic microgravity
experiments with seeds, cells and small animals.

53
00:03:55,430 --> 00:03:58,610
On the Russian side of the station there
are several other experiments in work.

54
00:03:58,610 --> 00:04:04,960
Anton Shkaplerov worked with the Tipologia
study, which looks to identify objectives

55
00:04:04,960 --> 00:04:10,260
that can be used to assess the mental state
of crew members during long-term spaceflights.

56
00:04:10,260 --> 00:04:15,730
Anatoly Ivanishin worked with both the
Identification and the Matryoshka experiments.

57
00:04:15,730 --> 00:04:19,910
First of those looks at how dynamic events
such as today's reboost affect the structure

58
00:04:19,910 --> 00:04:25,470
of the space station, and the other looks at
the radiation levels inside of space station.

59
00:04:25,470 --> 00:04:29,490
And Oleg Kononenko spent some time on
the Bar experiment today which is meant

60
00:04:29,490 --> 00:04:35,100
to assess methods for detecting loss
of pressure inside the space station.