



## International Space Station Flight Control Room

JOHNSON SPACE CENTER, HOUSTON, TEXAS

1  
00:00:01,770 --> 00:00:06,290  
Good morning and welcome to today's  
International Space Station update hour.

2  
00:00:06,290 --> 00:00:09,520  
You are joining us here inside of  
the flight control room in Houston,

3  
00:00:09,520 --> 00:00:11,960  
Texas where the Orbit 2 team is currently

4  
00:00:11,960 --> 00:00:16,400  
on console monitoring all the systems  
onboard the orbiting laboratory.

5  
00:00:16,400 --> 00:00:20,250  
Today they're being led by  
flight director Heather Rarick,

6  
00:00:20,250 --> 00:00:25,690  
and joining her to the left is capcom Dan  
Tani, serving as the voice communication link

7  
00:00:25,690 --> 00:00:30,410  
between controllers here on the  
ground and astronauts up in space.

8  
00:00:30,410 --> 00:00:35,430  
And those astronauts right now  
are the crew of Expedition 30,

9  
00:00:35,430 --> 00:00:40,670  
moving into one of the last  
few weeks of their expedition.

10  
00:00:40,670 --> 00:00:44,730  
They are being led by Commander Dan  
Burbank, there in the front row on the left

11

00:00:44,730 --> 00:00:48,540  
of your screen, he is also a NASA astronaut.

12  
00:00:48,540 --> 00:00:53,730  
He will be returning home on April  
27, just less than two weeks from now,

13  
00:00:53,730 --> 00:00:55,970  
with the two people behind him,

14  
00:00:55,970 --> 00:01:00,450  
Russian cosmonauts Anton  
Shkaplerov and Anatoly Ivanishin.

15  
00:01:01,470 --> 00:01:06,400  
Also on the back row we have our European  
Space Agency astronaut Andre Kuipers,

16  
00:01:06,400 --> 00:01:11,560  
NASA astronaut Don Pettit and Russian  
cosmonaut Oleg Kononenko in the front row right,

17  
00:01:11,560 --> 00:01:17,070  
who remain on board the station  
become the crew of Expedition 31.

18  
00:01:17,070 --> 00:01:21,050  
Major activity on board the station  
today has revolved around the undocking

19  
00:01:21,050 --> 00:01:27,570  
of the Progress 46 cargo ship, which took  
place earlier this morning at 6:04 a.m. CT.

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00:01:27,570 --> 00:01:32,900  
while the station flew about 245  
miles above southeast Russia,

21  
00:01:32,900 --> 00:01:35,780  
just north of the Mongolian border.

22

00:01:40,330 --> 00:01:44,390

Meanwhile, the crew on board has been involved in quite an array

23

00:01:44,390 --> 00:01:49,200

of different maintenance activities and a few biomedical experiments throughout their day.

24

00:01:49,200 --> 00:01:52,370

Starting off with Commander Burbank , who's been doing some unloading

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00:01:52,370 --> 00:01:58,730

from the ATV-3 cargo vehicle which is the European Space Agency's cargo resupply ship

26

00:01:58,730 --> 00:02:00,940

currently still docked to the station.

27

00:02:00,940 --> 00:02:04,910

Aside from that, he will be doing some work on the Waste and Hygiene Compartment,

28

00:02:04,910 --> 00:02:09,230

changing out the urine receptacle and also and insert filter.

29

00:02:09,230 --> 00:02:16,080

Moving on, Russian cosmonaut Anton Shkaplerov was doing some training today with the TORU,

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00:02:16,080 --> 00:02:21,830

or the Telerobotically Operated Rendezvous Unit, he is doing that alongside Oleg Kononenko

31

00:02:21,830 --> 00:02:27,260

as they prepare for the upcoming docking of the Progress 47 spacecraft,

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00:02:27,260 --> 00:02:31,680

scheduled to take place on  
Sunday at 9:40 a.m. CT.

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00:02:31,680 --> 00:02:37,540

He is also doing some crew departure preparation  
work as he will be returning home again

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00:02:37,540 --> 00:02:44,720

on April 27 alongside Commander Burbank and  
fellow Russian cosmonaut Anatoly Ivanishin.

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00:02:44,720 --> 00:02:50,880

Ivanishin meanwhile, was working on quite a  
few biomedical experiments onboard the station,

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00:02:50,880 --> 00:02:54,520

starting off his day with the Russian  
Immuno experiment, taking some saliva

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00:02:54,520 --> 00:03:00,230

and blood samples ,and also taking stress  
test, this looks to study any of the changes

38

00:03:00,230 --> 00:03:05,820

of these astronauts' immune system  
responses during long-duration spaceflights.

39

00:03:05,820 --> 00:03:11,840

He will also be working with the Pneumocard  
study, which looks to investigate the adaptation

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00:03:11,840 --> 00:03:15,630

of the cardiovascular system of  
these crew members as their exposed

41

00:03:15,630 --> 00:03:20,980

to low microgravity environment  
for long-durations of time.

42

00:03:20,980 --> 00:03:25,560

His other major task of the day will be photographing the docking assembly

43

00:03:25,560 --> 00:03:28,860

that the Progress 46 spacecraft just undocked from.

44

00:03:28,860 --> 00:03:33,170

Again, some of the more prep work that they're doing to be prepared

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00:03:33,170 --> 00:03:38,170

for the upcoming docking of Progress 46 on Sunday.

46

00:03:38,170 --> 00:03:44,130

The third Russian cosmonaut Oleg Kononenko, again participated in that TORU drill,

47

00:03:44,130 --> 00:03:50,090

alongside Anton Shkaplerov, and he will also be doing a video downlink test via their KU band a

48

00:03:50,090 --> 00:03:54,950

little bit later today, to make sure all the systems are still working

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00:03:54,950 --> 00:03:59,630

as their expected following that progress undocking.

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00:03:59,630 --> 00:04:06,560

European Space Agency astronaut Andre Kuipers is also doing another biomedical experiment today,

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00:04:06,560 --> 00:04:10,860

working on the Card experiment, taking some blood and urine samples as well

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00:04:10,860 --> 00:04:14,260

as doing a few rebreathing  
exercises throughout the day.

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00:04:14,260 --> 00:04:20,120

Card looks to investigate the mechanisms of  
heart disease using different portable equipment

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00:04:20,120 --> 00:04:23,550

and studies of blood pressure  
decreases the human body

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00:04:23,550 --> 00:04:28,650

as is exposed this microgravity environment  
onboard International Space Station.

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00:04:28,650 --> 00:04:33,490

And then our last Expedition  
30 crew member, Don Pettit,

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00:04:33,490 --> 00:04:39,150

was working on the Vascular experiment earlier  
today, very similar to the Russian experiment,

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00:04:39,150 --> 00:04:42,020

the Pneumocard, where it is  
looking to study the effects

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00:04:42,020 --> 00:04:45,440

of long-duration spaceflight  
on the cardiovascular system.

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00:04:45,440 --> 00:04:49,290

This is usually done on,  
these changes are brought

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00:04:49,290 --> 00:04:54,120

about by the unique micro-gravity environment  
that could impact the vascular system

62  
00:04:54,120 --> 00:04:56,780  
and accelerate the stiffening of blood vessels,

63  
00:04:56,780 --> 00:05:01,350  
which actually parallels the aging  
process that we see here down on Earth.

64  
00:05:01,350 --> 00:05:05,430  
And then he will also be working  
pretty extensively with Robonaut today,

65  
00:05:05,430 --> 00:05:11,540  
the station's dexterous robot companion  
onboard, moving it through a few ways