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00:00:01,300 --> 00:00:05,320

Good morning and welcome to the International Space Station flight control room here

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00:00:05,320 --> 00:00:10,910

in Houston Texas, where you are joining us for ISS update on this Wednesday, April 4.

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00:00:10,910 --> 00:00:12,730

Currently the Orbit 2 team is

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00:00:12,730 --> 00:00:17,110

on console monitoring the systems onboard the orbiting laboratory here

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00:00:17,110 --> 00:00:19,160

in mission control Houston.

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00:00:19,160 --> 00:00:23,440

That team today is being led by flight director Tony Ceccacci,

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00:00:23,440 --> 00:00:29,440

joining him at the capcom position, serving as the voice command link between controllers here

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00:00:29,440 --> 00:00:34,380

on the ground and the crew in space is Hal Getzleman.

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00:00:34,380 --> 00:00:39,340

Right now the Expedition 30 crew is hard at work on an array of science experiments

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00:00:39,340 --> 00:00:41,550

and maintenance onboard the station.

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00:00:41,550 --> 00:00:44,340

That crew, if you start in

the front row on the left,

12
00:00:44,340 --> 00:00:47,140
is commanded by NASA astronaut Dan Burbank.

13
00:00:47,140 --> 00:00:52,720
Behind him, are Russian cosmonauts
Anton Shkaplerov and Anatoly Ivanishin,

14
00:00:52,720 --> 00:00:58,280
and further along on the back row, you have
European Space Agency astronaut Andre Kuipers,

15
00:00:58,280 --> 00:01:04,630
NASA astronaut Don Pettit, and finally in the
front right, Russian cosmonaut Oleg Kononenko.

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00:01:04,630 --> 00:01:11,740
So as mentioned, the crew hard at work today on
quite a few replacement activities for some the

17
00:01:11,740 --> 00:01:14,630
of systems onboard the International
Space Station.

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00:01:14,630 --> 00:01:18,480
Commander Burbank spent a good
part of his day earlier working

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00:01:18,480 --> 00:01:22,610
on the station's Attitude Control
System Global Positioning System.

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00:01:22,610 --> 00:01:28,830
You can see here him as he works alongside
European Space Agency astronaut Andre Kuipers

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00:01:28,830 --> 00:01:31,710
to remove and replace that GPS system.

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00:01:31,710 --> 00:01:37,930

It's part of the hardware that's used in sending navigation data,

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00:01:37,930 --> 00:01:43,540

and will be used in the upcoming SpaceX Dragon flight next month as the capsule flies

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00:01:43,540 --> 00:01:47,870

within close proximity of the complex for grapple and birthing.

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00:01:47,870 --> 00:01:52,250

Aside from that global positioning remove and replace work,

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00:01:52,250 --> 00:01:56,720

Commander Burbank is doing some weekly cleaning activities today just keep the station

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00:01:56,720 --> 00:01:59,780

and tiptop order.

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00:01:59,780 --> 00:02:04,560

Moving on, we have Russian cosmonaut Anton Shkaplerov who immediately after waking

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00:02:04,560 --> 00:02:08,720

up today participated in the Russian Sprut 2 investigation,

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00:02:08,720 --> 00:02:14,470

which looks into preventing any unfavorable impacts on how well the astronauts stay hydrated

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00:02:14,470 --> 00:02:19,250

in that microgravity environment, and also how the fluid is distributed throughout the

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00:02:19,250 --> 00:02:20,970

astronauts body.

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00:02:20,970 --> 00:02:25,700

Aside from that experiment, he'll be replacing a power supply unit in one of the air conditioners

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00:02:25,700 --> 00:02:32,440

in the Zvezda service module alongside, his fellow Russian cosmonaut Anatoly Ivanishin.

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00:02:32,440 --> 00:02:37,330

Ivanishin meanwhile did a physical fitness evaluation a little bit earlier

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00:02:37,330 --> 00:02:38,090

on the treadmill.

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00:02:38,090 --> 00:02:44,120

These astronauts are monitored very closely by doctors and flight surgeons down here

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00:02:44,120 --> 00:02:49,160

on the ground to ensure that their health is being maintained throughout their

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00:02:49,160 --> 00:02:51,370

long-duration spaceflights.

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00:02:51,370 --> 00:02:56,410

Aside from that, he was also participating in an Interactions experiment which looks

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00:02:56,410 --> 00:03:02,010

to study the behavior of a small group throughout their long-duration expeditions.

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00:03:02,010 --> 00:03:08,340

The third Russian cosmonaut Oleg Kononenko was working on the Pneumocard study today,

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00:03:08,340 --> 00:03:13,060
which is a Russian study of the
adaptation of the cardiovascular system

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00:03:13,060 --> 00:03:17,230
of these crew members during those
long periods spent in microgravity.

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00:03:17,230 --> 00:03:23,810
He will also a little bit later today be doing
a urine transfer from some of the storage tanks

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00:03:23,810 --> 00:03:26,750
on board the station to an empty water tank

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00:03:26,750 --> 00:03:32,320
on the Progress vehicle currently
docked to the station.

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00:03:32,320 --> 00:03:36,310
European Space Agency astronaut Andre
Kuipers is also doing a little bit

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00:03:36,310 --> 00:03:40,620
of weekly cleaning activities, and
again, assisting Commander Burbank

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00:03:40,620 --> 00:03:44,680
with that goal positioning system
removal and replacement work.

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00:03:44,680 --> 00:03:50,540
He is also working on the NanoRack platforms,
doing a few reconfiguration activities on some

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00:03:50,540 --> 00:03:54,600
of the modules and getting some
onboard training for the operation

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00:03:54,600 --> 00:03:58,920

of the NanoRacks Microscope 1 and 2.

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00:03:58,920 --> 00:04:03,400

Our final Expedition 30 crew member, NASA astronaut Don Pettit,

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00:04:03,400 --> 00:04:07,520

was working with the VO2max experiment today.

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00:04:07,520 --> 00:04:11,720

It is a system of much like the ones found here on the ground that looks

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00:04:11,720 --> 00:04:17,250

to study aerobic capacity, and these astronauts participate in this study, both before,

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00:04:17,250 --> 00:04:20,760

during and after their long-duration spaceflights

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00:04:20,760 --> 00:04:25,310

to see how the microgravity environments there again their aerobic capacity

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00:04:25,310 --> 00:04:29,620

and how well their circulatory systems working.

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00:04:29,620 --> 00:04:32,670

He is doing some standard maintenance work on the ARED,

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00:04:32,670 --> 00:04:38,280

the advanced resistive exercise device, greasing up some the rails that help to ensure

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00:04:38,280 --> 00:04:43,230

that its vibration isolation and

stabilization system continues working.

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00:04:43,230 --> 00:04:47,910

Then finally, he will be working on a very interesting study all that is sponsored

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00:04:47,910 --> 00:04:53,930

by the Japanese Aerospace Exploration Agency that looks to study how plants sense gravity

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00:04:53,930 --> 00:04:56,600

as an environment signal, and then use it