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00:00:03,760 --> 00:00:08,069

[COMMENTATOR] Good day and welcome to Mission Control Houston where the team is watching

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00:00:08,069 --> 00:00:13,490

over the activities of the Expedition 33 crew aboard the International Space Station.

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00:00:13,490 --> 00:00:18,600

Space station orbiting about 240 statute miles over the southern Indian Ocean preparing to

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00:00:18,600 --> 00:00:23,060

make a northeasterly swing that will take it just off the coast of Australia between

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00:00:23,060 --> 00:00:25,630

that continent and New Zealand.

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00:00:25,630 --> 00:00:30,070

Here onboard the International Space Station Commander Suni Williams remains in charge

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00:00:30,070 --> 00:00:38,059

with fellow NASA astronaut Kevin Ford, also onboard are Aki Hoshide from Japan Aerospace

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00:00:38,059 --> 00:00:45,039

Exploration Agency as well as Yuri Malenchenko, Oleg Novitskiy and Evgeny Tarelkin from the

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00:00:45,039 --> 00:00:47,519

Russian Federal Space Agency.

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00:00:47,519 --> 00:00:52,549

The recently reconstituted six-person crew onboard the space station is working through

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00:00:52,549 --> 00:00:55,629

a very busy day of activities.

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00:00:55,629 --> 00:00:59,280

Flight director Greg Whitney and Capcom Clay Anderson have been working with them throughout

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00:00:59,280 --> 00:01:05,440

the day as they work through some schedule adjustments that were needed, but Mission

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00:01:05,440 --> 00:01:10,090

Control has come up with some workarounds that are resulting in all the tasks for the

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00:01:10,090 --> 00:01:11,110

day being completed.

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00:01:11,110 --> 00:01:16,880

Early this morning both the local area network computer servers on the space station which

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00:01:16,880 --> 00:01:21,370

distribute programs and files to all the other laptops used by the crew for routine support

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00:01:21,370 --> 00:01:23,720

operations failed.

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00:01:23,720 --> 00:01:27,830

That meant the crew didn't have the ability to read their electronic task schedules or

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00:01:27,830 --> 00:01:33,220

their email, and Mission Control however was able to upload copies of all the necessary

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00:01:33,220 --> 00:01:37,960

documents for the start of the day so they could get to one of the laptops onboard.

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00:01:37,960 --> 00:01:42,730
But then the crew had to focus on replacing
the hard drives in the two servers and getting

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00:01:42,730 --> 00:01:47,220
the network back up and running . That's
pretty much complete now and the team is finishing

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00:01:47,220 --> 00:01:53,000
up the last bits of uploading all the programs
and files to those servers so that the crew

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00:01:53,000 --> 00:01:54,180
can get back to normal.

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00:01:54,180 --> 00:01:58,430
Those computers are not used for critical
functions of maintaining the space station

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00:01:58,430 --> 00:02:01,770
but do help keep things running day to day.

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00:02:01,770 --> 00:02:05,190
That did delay the start of one of the main
pieces of maintenance work on the station

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00:02:05,190 --> 00:02:10,750
today which was work on the Waste and Hygiene
Compartment water valve which should get that

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00:02:10,750 --> 00:02:14,329
toilet in US segment of the space station
working properly again.

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00:02:14,329 --> 00:02:19,890
Suni Williams, as we're seeing live now,
is in the process of replacing the flush water

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00:02:19,890 --> 00:02:24,749

components right now and is doing that on her own because Kevin Ford's main activity

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00:02:24,749 --> 00:02:30,900
today was the work with an experiment known as ELITE and so he wasn't able to help so

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00:02:30,900 --> 00:02:36,409
Suni is working on this toilet plumbing repair by herself right now.

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00:02:36,409 --> 00:02:40,749
The ELITE experiment is, should be under way about now, looks at connections between the

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00:02:40,749 --> 00:02:44,569
human brain visualization and motion in the absence of gravity.

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00:02:44,569 --> 00:02:49,739
It's an Italian Space Agency experiment and it stayed in its regular afternoon time

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00:02:49,739 --> 00:02:51,590
slot.

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00:02:51,590 --> 00:02:57,170
Meanwhile in this morning's International Space Station mission management team meeting,

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00:02:57,170 --> 00:03:02,239
mission managers heard an update from the Russian flight controllers that confirmed

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00:03:02,239 --> 00:03:07,099
that both of the manifolds on the Progress 48 vehicle that was used in last week's

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00:03:07,099 --> 00:03:10,169
debris avoidance maneuver are in good working

condition.

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00:03:10,169 --> 00:03:14,180
That maneuver successfully moved the station out of the path of a small piece of space

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00:03:14,180 --> 00:03:19,590
junk from an Iridium 33 satellite collision on Friday but because only one of the thruster

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00:03:19,590 --> 00:03:23,099
manifolds was fired it didn't reach the planned altitude.

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00:03:23,099 --> 00:03:28,010
Course the crew was never in any danger but Russian engineers are continuing to look at

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00:03:28,010 --> 00:03:31,439
why both of those manifolds on the Progress weren't used as planned.

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00:03:31,439 --> 00:03:36,269
They expect report back more details to the mission management team for all the international

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00:03:36,269 --> 00:03:38,519
partners a little bit later.

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00:03:38,519 --> 00:03:43,419
In addition we heard today from the Japan Aerospace Exploration Agency representatives

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00:03:43,419 --> 00:03:48,310
of the management team that they're going to remove some bubbles from the new aquarium

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00:03:48,310 --> 00:03:52,739
that holds Medaka fish on the station on Nov. 9 a little bit later this week.

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00:03:52,739 --> 00:03:56,599

This fish are doing well but the bubbles need to be removed so the scientists can conduct

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00:03:56,599 --> 00:04:01,419

their experiments which look at how zero gravity environment affects the fish and they hope

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00:04:01,419 --> 00:04:06,329

to apply those lessons to humans in long duration space travel.

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00:04:06,329 --> 00:04:10,550

We have a lot of activity coming up onboard the International Space Station as the, we

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00:04:10,550 --> 00:04:12,650

have some crew exchanges planned.

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00:04:12,650 --> 00:04:17,320

Of course we've got a six member crew onboard the International Space Station right now.

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00:04:17,320 --> 00:04:23,030

But three of those crew members are scheduled to be departing very soon on the 18th of November.

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00:04:23,030 --> 00:04:28,760

Commander Suni Williams, JAXA astronaut Aki Hoshide and Russian astronaut Yuri Malenchenko

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00:04:28,760 --> 00:04:35,840

will be leaving in their Soyuz spacecraft and returning home for a landing in Kazakhstan.

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00:04:35,840 --> 00:04:41,660

And then of course that will leave Oleg Novitskiy, Evgeny Tarelkin and Kevin Ford aboard alone.

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00:04:41,660 --> 00:04:47,500
Before the Expedition 33 departs Williams
will hand over command of the space station

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00:04:47,500 --> 00:04:52,280
to Kevin Ford and all that'll be covered
of course on NASA Television as will be the

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00:04:52,280 --> 00:04:57,000
launch of the next group of crew members going
up to the International Space Station led

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00:04:57,000 --> 00:05:02,260
by Chris Hadfield of the Canadian Space Agency
with Roman Romanenko of the Russian Federal

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00:05:02,260 --> 00:05:07,320
Space Agency and of course Tom Marshburn from
NASA heading up to round out the six person

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00:05:07,320 --> 00:05:10,910
crew once again.

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00:05:10,910 --> 00:05:16,660
Well yesterday did mark a note of interest
for the crew onboard the International Space

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00:05:16,660 --> 00:05:17,660
Station.

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00:05:17,660 --> 00:05:21,750
The crew was notified by Mission Control that
the first element of the space station the

72
00:05:21,750 --> 00:05:30,070
Zarya control module which was launched in
1998 had reached its 80,000th trip, 80,000th

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00:05:30,070 --> 00:05:31,550

orbit of the Earth.

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00:05:31,550 --> 00:05:38,690

All computed out that equates to about 2.1 billion miles and we have an audio clip of

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00:05:38,690 --> 00:05:43,460

what the crew heard from Mission Control and their response.

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00:05:43,460 --> 00:05:49,280

[CAPCOM] And Kevin, one other item of interest to the crew we hope is that today in a few

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00:05:49,280 --> 00:05:56,810

minutes we will initiate the 80,000th orbit of the Zarya module which of course was the

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00:05:56,810 --> 00:06:03,140

first element of the International Space Station, and it was launched Nov. 20, 1998.

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00:06:03,140 --> 00:06:09,780

You guys have currently traveled 2.1 billion miles by being a part of that module which

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00:06:09,780 --> 00:06:15,330

is equivalent roughly to the distance between the Earth and the planet Neptune.

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00:06:15,330 --> 00:06:20,190

So with that we'd like to congratulate you and the entire crew for this big milestone.

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00:06:20,190 --> 00:06:26,950

And Kevin, as a rookie the hazing says you have to continue counting from 80,000.

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00:06:26,950 --> 00:06:35,510

[SUNI WILLIAMS] We'll make Kevin start counting

backwards.

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00:06:35,510 --> 00:06:37,650

But seriously.

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00:06:37,650 --> 00:06:45,370

It is a huge accomplishment for the space station program as well as the space shuttle

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00:06:45,370 --> 00:06:48,490

program who brought a lot of these modules up here.

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00:06:48,490 --> 00:06:54,600

So a big congratulations to the program, all the partners around the world for making this

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00:06:54,600 --> 00:06:58,270

a place that we can live and work pretty productively, might add.

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00:06:58,270 --> 00:07:03,100

So it's a great place to live, great place to work.

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00:07:03,100 --> 00:07:05,860

Thank you.

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00:07:05,860 --> 00:07:11,390

[CAPCOM] Good words, crew.