1
00:00:01,496 --> 00:00:02,966
Welcome to Mission Control Houston.

2
00:00:03,576 --> 00:00:06,396
We're inside the International
Space Station flight control room

3
00:00:06,396 --> 00:00:08,776
for today's ISS Update on Tuesday, Aug.

4
00:00:08,776 --> 00:00:13,166
30. The team here is monitoring
systems aboard the space station

5
00:00:13,166 --> 00:00:17,936
and not working any major issues at this
time, just following along with the activities

6
00:00:17,936 --> 00:00:23,236
of the Expedition 28 crew, who is living
and working aboard the space station.

7
00:00:23,896 --> 00:00:31,656
The crew is comprised of six crew members that
continue to maintain the station operations

8
00:00:31,656 --> 00:00:35,316
and work on science and research
activities aboard the complex.

9
00:00:36,746 --> 00:00:42,226
Overnight, the flight control team successfully
replaced a Remote Power Control[ler] Module,

10
00:00:42,256 --> 00:00:44,536
or a circuit breaker, on the
outside of the space station

11
00:00:45,026 --> 00:00:47,876

without any crew interaction
from inside the station.

12
00:00:47,876 --> 00:00:52,486
Actually the crew members were asleep while the
robotics flight controllers operated Dextre,

13
00:00:52,996 --> 00:00:56,726
the Canadian Space Agency's robotic
handyman that is on the outside

14
00:00:56,726 --> 00:00:58,146
of the International Space Station.

15
00:00:58,766 --> 00:01:05,296
It replaced that faulty circuit breaker
with a new one and removed the old one

16
00:01:05,296 --> 00:01:07,076
to place it in a storage container.

17
00:01:07,706 --> 00:01:12,206
That sort of task is normally
done by spacewalking astronauts,

18
00:01:12,266 --> 00:01:19,236
but with Dextre now available to do maintenance
work, that can be done remotely from the ground

19
00:01:19,796 --> 00:01:24,746
and save time for the crew members to focus on
their science activities inside the station.

20
00:01:25,676 --> 00:01:31,196
As such, the crew members are inside the
station working on various science activities.

21
00:01:31,826 --> 00:01:35,216
Astronauts Mike Fossum and
Satoshi Furukawa have been working

22
00:01:35,216 --> 00:01:38,896
on getting a science experiment
ready for its operation.

23
00:01:39,536 --> 00:01:44,436
Actually the MARES experiment as it's called,
which stands for Muscle Atrophy Research

24
00:01:44,436 --> 00:01:49,556
and Exercise System was not able to begin
functioning when it was first set up.

25
00:01:49,676 --> 00:01:55,196
There were some issues with the bolts that
are installed on the frame of the hardware

26
00:01:55,196 --> 00:01:58,256
and also the box, so those are
being removed and replaced.

27
00:01:58,846 --> 00:02:03,826
And also there was a problem with
powering up the experiment initially,

28
00:02:03,946 --> 00:02:08,186
so after some troubleshooting on the
ground and recreating that issue,

29
00:02:08,626 --> 00:02:13,316
the teams created a procedure
for Furukawa and Fossum to go

30
00:02:13,316 --> 00:02:21,256
through to try adjusting the electronics
boxes in that experiment and hopefully bring

31
00:02:21,256 --> 00:02:24,416
that back up online so it can function.

32
00:02:24,416 --> 00:02:30,086
It is a human physiology experiment which aims
to better understand the effects of microgravity

33
00:02:30,086 --> 00:02:34,126
on the muscular system, and it's
provided by the European Space Agency.

34
00:02:35,596 --> 00:02:41,216
The ground teams also helped with science
experiments by activating one of the experiments

35
00:02:41,306 --> 00:02:42,786
that Fossum worked with yesterday.

36
00:02:42,786 --> 00:02:48,196
He replaced a sample inside the Materials
Science Laboratory, and that was activated.

37
00:02:48,686 --> 00:02:53,796
That includes experiments that aim to improve
our understanding of the solidification process

38
00:02:53,796 --> 00:02:58,466
of metallic alloys to help
understand the casting processes

39
00:02:59,146 --> 00:03:03,286
that will have several applications
in our daily lives.

40
00:03:03,456 --> 00:03:10,976
The crew members also working with relocating
some items - you see astronaut Ron Garan

41
00:03:10,976 --> 00:03:16,786
in this view - helping with the efficiency
of storage onboard and unpacking equipment

42

00:03:16,786 --> 00:03:20,306
from a module inside the station.

43
00:03:20,306 --> 00:03:25,136
Astronaut Satoshi Furukawa
also took time this morning -

44
00:03:25,346 --> 00:03:31,006
he's from the Japan Aerospace Exploration
Agency, and he took time to speak with children