SPACE TO GROUND

1
00:00:03,130 --> 00:00:06,690
Welcome to Space To Ground, your weekly look
at what's happening on board the International

2
00:00:06,690 --> 00:00:07,690
Space Station.

3
00:00:07,690 --> 00:00:08,830
I'm Dan Huot.

4
00:00:08,830 --> 00:00:13,160
The crew was heavily focused on some maintenance
and upkeep work on the station this week.

5
00:00:13,160 --> 00:00:17,680
One device getting some special attention:
the Carbon Dioxide Removal Assembly.

6
00:00:17,680 --> 00:00:21,420
Called CDRA for short, it plays an important
role in keeping the astronauts atmosphere

7
00:00:21,420 --> 00:00:22,860
safe for breathing.

8
00:00:22,860 --> 00:00:27,220
As crewmembers exhale, they increase the amount
of CO2 in the station's atmosphere and rely

9
00:00:27,220 --> 00:00:29,419
on CDRA to continually remove it.

10
00:00:29,419 --> 00:00:33,899
This is a critical piece of the puzzle for
any spacecraft on a long duration mission,

11
00:00:33,899 --> 00:00:39,230
like those that will one day take us to mars,
and is being perfected on the ISS right now.

12
00:00:39,230 --> 00:00:43,070
While fireworks shows will light up the skies
above America this Independence Day weekend,

13
00:00:43,070 --> 00:00:47,010
the astronauts will be looking down at some
of the best light shows the universe has to

14
00:00:47,010 --> 00:00:48,050
offer.

15
00:00:48,050 --> 00:00:52,080
This view of aurora australis, also known
as the southern lights was captured by one

16
00:00:52,080 --> 00:00:55,360
of the station cameras while flying overhead.

17
00:00:55,360 --> 00:00:58,670
Astronauts lucky enough to catch a glimpse
of this phenomenon can see the astral lights

18
00:00:58,670 --> 00:01:02,070
stretching over the earth's surface for hundreds
of miles.

19
00:01:02,070 --> 00:01:05,759
Also illuminating the night sky, lightning
storms all across the globe have provided

20
00:01:05,759 --> 00:01:08,420
the astronauts with a spectacular show.

21
00:01:08,420 --> 00:01:13,689
Reid Wiseman recently shared these glimpses
of huge storms over Houston and Malaysia.

22
00:01:13,689 --> 00:01:20,560

As always, you can follow Reid as he documents
his entire time in space on twitter at @astro_reid.

23
00:01:20,560 --> 00:01:23,770
This week's Twitter question comes from Kelly,
a skin care chemist.

24
00:01:23,770 --> 00:01:28,950
She asks: "Are there any experiments on skin
physiology happening on the ISS?"

25
00:01:28,950 --> 00:01:30,479
Lucky for you Kelly there sure are.

26
00:01:30,479 --> 00:01:35,380
A study called Skin-B is taking a look at
how human skin ages, something that happens

27
00:01:35,380 --> 00:01:36,909
much faster in microgravity.

28
00:01:36,909 --> 00:01:41,719
it will not only teach us how our skin adapts
in a weightless environment, but also serve

29
00:01:41,719 --> 00:01:45,430
as a model for learning about how other organs
age in the human body.

30
00:01:45,430 --> 00:01:50,110
In grosser news, dead skin doesn't fall off
the body naturally while in space like it

31
00:01:50,110 --> 00:01:54,490
does down here on earth, making for a bit
of a messy surprise for astronauts on orbit

32
00:01:54,490 --> 00:01:56,549
once they pull a sock off.

33
00:01:56,549 --> 00:02:00,759
Make sure to keep sending your questions and comments using the hashtag #spacetoground.