



# Space to Ground

1  
00:00:03,080 --> 00:00:05,000  
"Houston, Station on Space to Ground."

2  
00:00:05,220 --> 00:00:07,820  
Welcome to Space to Ground, I'm Kathryn Clayton.

3  
00:00:08,280 --> 00:00:11,560  
This week, robotic controllers  
and the crew worked to install the new

4  
00:00:11,560 --> 00:00:12,820  
docking adapter to the space station.

5  
00:00:14,780 --> 00:00:17,840  
On Wednesday Expedition 60 flight engineers Nick Hague

6  
00:00:17,840 --> 00:00:21,060  
and Andrew Morgan of  
NASA completed a spacewalk to install

7  
00:00:21,070 --> 00:00:26,200  
the International Docking Adapter 3, or IDA-3 to the space station.

8  
00:00:26,200 --> 00:00:30,369  
The previous night, robotic controllers on  
the ground use the Canadarm2 to extract

9  
00:00:30,369 --> 00:00:34,680  
the adapter from the trunk of the Dragon  
cargo craft and position on top of the Harmony module.

10  
00:00:35,340 --> 00:00:38,400  
During the spacewalk Nick  
and Andrew routed and installed cables

11  
00:00:38,410 --> 00:00:42,790  
to the new docking adapter. Sitting atop  
the Pressurized Mating Adapter 3 on

12

00:00:42,790 --> 00:00:46,750

the space facing side of the Harmony module, IDA-3 will allow two

13

00:00:46,750 --> 00:00:49,500

Commercial Crew vehicles to dock to the station at the same time.

14

00:00:50,280 --> 00:00:53,460

This was the third spacewalk for Hague and the first for Morgan.

15

00:00:54,560 --> 00:00:58,200

Even with the spacewalk there's always time for science on the space station.

16

00:00:59,180 --> 00:01:04,080

Goodyear Tire is using the space station laboratory and the microgravity environment to push the

17

00:01:04,089 --> 00:01:08,080

limits of silica fillers for tire application. Nick Hague performed the

18

00:01:08,080 --> 00:01:11,710

investigation in the microgravity science glovebox and use traditional

19

00:01:11,710 --> 00:01:16,390

synthesis techniques for silica fillers to create novel morphologies that aren't

20

00:01:16,390 --> 00:01:20,350

available on Earth. The data from this studies will determine if there are

21

00:01:20,350 --> 00:01:23,500

improvements to silica fillers that could lead to new manufacturing

22

00:01:23,500 --> 00:01:27,040

technology on the ground.  
This could mean significant improvements

23  
00:01:27,040 --> 00:01:31,560  
in fuel efficiency that will not only  
save money but also help protect the environment.

24  
00:01:32,280 --> 00:01:37,040  
The Russian Soyuz MS 14  
launch adds even more excitement to a busy week.

25  
00:01:38,580 --> 00:01:40,960  
An unpiloted Russian Soyuz crew ship

26  
00:01:40,960 --> 00:01:45,189  
launched Thursday from the Baikonur  
Cosmodrome in Kazakhstan. There was no

27  
00:01:45,189 --> 00:01:49,539  
crew on board as this launch was to test  
the newly upgraded 2.1A booster

28  
00:01:49,539 --> 00:01:53,920  
segments during ascent. The spacecraft  
will automatically dock early Saturday

29  
00:01:53,920 --> 00:01:58,200  
morning to the space station's Poisk  
module where it will stay until September.