



SPACE TO GROUND

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00:00:00,909 --> 00:00:06,589

Dan: Welcome to Space To Ground, your weekly look at what's happening on board the International

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00:00:06,589 --> 00:00:08,330

Space Station. I'm Dan Huot.

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00:00:08,330 --> 00:00:12,669

A lot of activity took place this week in the Japanese Experiment Module, also known

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00:00:12,669 --> 00:00:13,419

as Kibo.

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00:00:13,419 --> 00:00:18,699

The largest single habitable element on the ISS, Kibo houses a special airlock used to

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00:00:18,699 --> 00:00:23,349

transfer experiments to the outside of the station. The crew worked to install an attachment

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00:00:23,349 --> 00:00:28,250

to the module's robotic arm, called the Small Fine Arm. The new hardware is about 6 feet

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00:00:28,250 --> 00:00:32,650

in length and can handle delicate operations on Kibo's exposed facility.

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00:00:32,650 --> 00:00:36,280

World Cup excitement came to a head on the station this week with the highly anticipated

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00:00:36,280 --> 00:00:38,370

match-up between the U.S. and Germany.

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00:00:38,370 --> 00:00:43,149

U.S. astronauts Steve Swanson and Reid Wiseman

and German astronaut Alexander Gerst even

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00:00:43,149 --> 00:00:46,030

placed a little side bet to make things more interesting.

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00:00:46,030 --> 00:00:51,120

Gerst: If the U.S. wins, these guys are allowed to draw a little U.S. on my head, but then

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00:00:51,120 --> 00:00:56,329

again if Germany wins, these guys need to shave their heads, so we all look alike.

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00:00:56,329 --> 00:01:01,530

We'll have to check and see if Steve and Reid took a trip to the ISS barber shop.

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00:01:01,530 --> 00:01:05,050

Ever have trouble sleeping when the sun is up? Well imagine how you might feel if the

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00:01:05,050 --> 00:01:07,160

sun rose 16 times a day.

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00:01:07,160 --> 00:01:12,330

A study called Circadian Rhythms is looking to track how astronaut's sleep cycle changes

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00:01:12,330 --> 00:01:15,900

while they're in space and this week, Reid Wiseman was the test subject.

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00:01:15,900 --> 00:01:21,300

Wiseman: Right now i have a sensor on my forehead, which is not the most glamorous experiment.

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00:01:21,300 --> 00:01:25,430

But they're measuring my body temperature over a two and a half day period, just to

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00:01:25,430 --> 00:01:29,560

see what space does to your sleep cycles.

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00:01:29,560 --> 00:01:34,660

Once we better understand how the body's biological clock varies in orbit, we can fine tune the

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00:01:34,660 --> 00:01:39,110

astronauts' work and sleep schedules, leading to improved overall health and performance.

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00:01:39,110 --> 00:01:43,030

This week's twitter question comes from Daniel; he asks, What is the max squat weight lifted

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00:01:43,030 --> 00:01:45,720

by an astronaut on ARED in space?

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00:01:45,720 --> 00:01:49,760

For those that don't know, ARED stands for the advanced resistive exercise device,

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00:01:49,760 --> 00:01:54,460

And it provides up to 600 pounds of resistance for astronauts to simulate weight lifting

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00:01:54,460 --> 00:01:58,520

in microgravity. We followed up with one of the astronaut strength, conditioning, and

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00:01:58,520 --> 00:02:03,560

rehabilitation specialists, and he told us a few crew members have gotten up just over

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00:02:03,560 --> 00:02:05,250

400lbs.