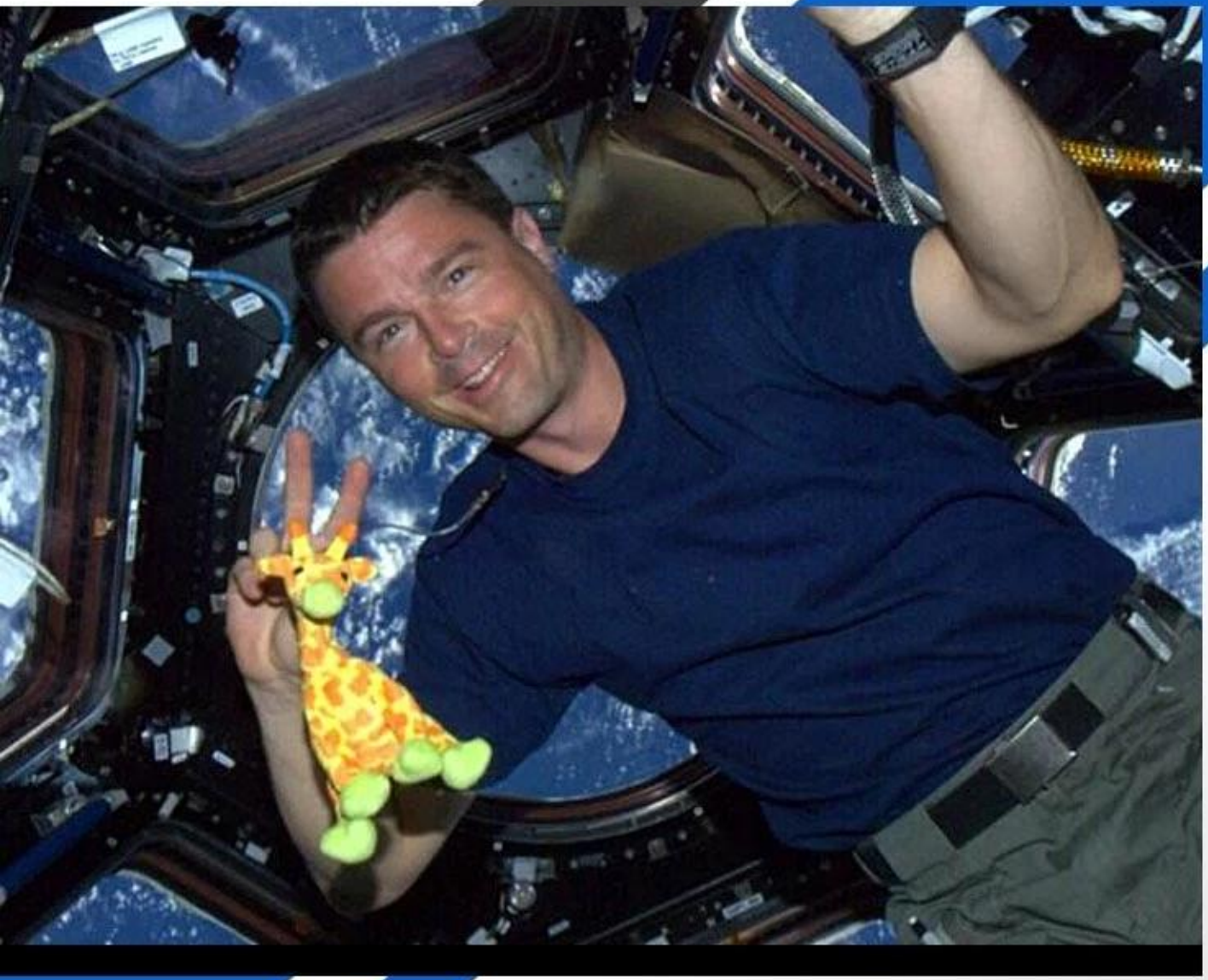

SPACE TO GROUND

1
00:00:03,069 --> 00:00:07,040
Welcome to Space to Ground, your weekly look
at what's happening on board ISS. I'm Dan

2
00:00:07,040 --> 00:00:07,950
Huot.

3
00:00:07,950 --> 00:00:12,099
Three new crewmembers are hard at work getting
their space legs under them onboard the International

4
00:00:12,099 --> 00:00:13,389
Space Station.

5
00:00:13,389 --> 00:00:17,740
Reid Wiseman, Max Suraev and Alexander Gerst
just completed their first full week, jumping

6
00:00:17,740 --> 00:00:21,890
right in with experiment and repair work.
One study they worked on was the Advanced

7
00:00:21,890 --> 00:00:26,869
Colloids Experiment, which is looking at particle
separation in liquids, gels and creams. For

8
00:00:26,869 --> 00:00:32,390
us on Earth, this could help maximize stability
and shelf life for countless household products.

9
00:00:32,390 --> 00:00:35,870
And of course where's the fun in being an
astronaut if you can't share all these new

10
00:00:35,870 --> 00:00:37,920
experiences with the whole world.

11
00:00:37,920 --> 00:00:42,280
NASA's Reid Wiseman has been taking the twitterverse

by storm, showing the world the breathtaking

12
00:00:42,280 --> 00:00:46,469
views he wakes up to every day as well as
some of the finer points of adjusting to live

13
00:00:46,469 --> 00:00:53,219
in zero g. Be sure to follow Reid and keep
up with his time in space on twitter at @astro_reid

14
00:00:53,219 --> 00:00:57,910
We have two social media questions this week.
First, Kevin asks "Why isn't the ISS round

15
00:00:57,910 --> 00:01:03,379
to create gravity when it's spinning? Would
this design not be better for overall quality

16
00:01:03,379 --> 00:01:03,590
on board?"

17
00:01:03,590 --> 00:01:08,320
Not necessarily, as microgravity is one of
the biggest advantages of the ISS.

18
00:01:08,320 --> 00:01:12,500
When you can turn off gravity in your experiment,
you can look at things from an entirely new

19
00:01:12,500 --> 00:01:17,420
perspective. Studies on micro-organisms, fluids
and other materials are just a few areas where

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00:01:17,420 --> 00:01:22,090
we are able to see exciting new behavior that
impacts how we do things in space, and here

21
00:01:22,090 --> 00:01:22,770
on earth.

22
00:01:22,770 --> 00:01:27,259
It makes moving huge objects for repair work
a lot easier on astronaut muscles too.

23
00:01:27,259 --> 00:01:31,009
Our second question comes from Philipp. He
asks "Could the space station function without

24
00:01:31,009 --> 00:01:31,619
any crew?"

25
00:01:31,619 --> 00:01:34,479
Well, the answer is no...and yes.

26
00:01:34,479 --> 00:01:39,240
Simply put, we need the people to do the science.
They act as the hands for every researcher

27
00:01:39,240 --> 00:01:44,369
flying experiments to the ISS as well as being
the on-orbit repair experts in case anything

28
00:01:44,369 --> 00:01:48,920
breaks down. The station itself is flown by
teams around the world like the one here in

29
00:01:48,920 --> 00:01:52,840
mission control Houston. They are responsible
for operating the vehicle around the clock

30
00:01:52,840 --> 00:01:57,290
and even flew the ISS for about two years
in the very beginning before any crew were

31
00:01:57,290 --> 00:01:58,600
onboard.