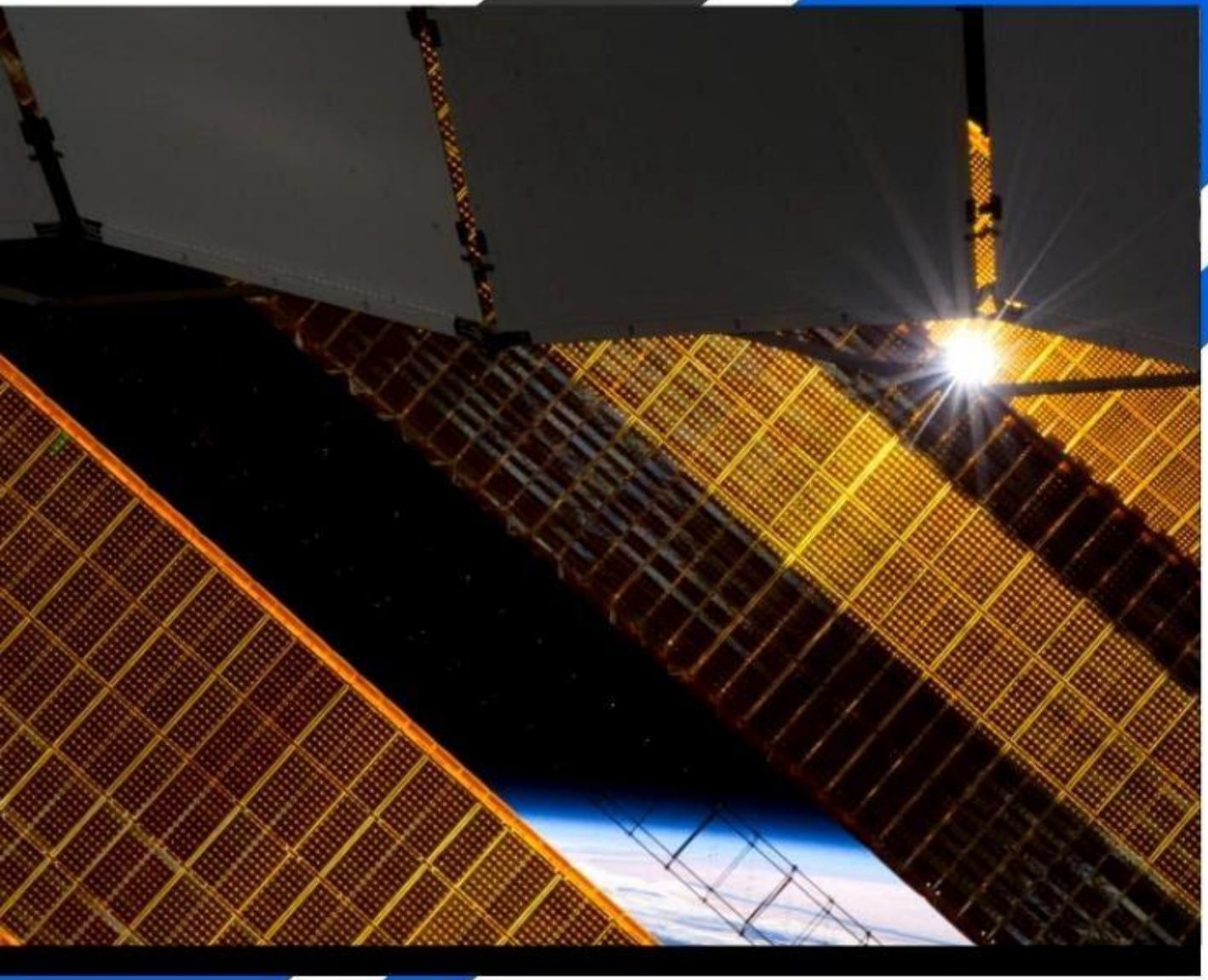

SPACE TO GROUND

1
00:00:00,900 --> 00:00:05,530
VO: Houston, Station on Space to Ground.
Josh Byerly: Welcome to Space to Ground.

2
00:00:05,530 --> 00:00:07,509
Your weekly look at what's happening on boardISS. I'm Josh Byerly.

3
00:00:07,509 --> 00:00:10,650
The three newest station residents are getting
used to their new home in space, since their

4
00:00:10,650 --> 00:00:12,130
arrival last week.

5
00:00:12,130 --> 00:00:16,230
Steve Swanson, Oleg Artemyev and Alexander
Skvortsov are going through standard onboard

6
00:00:16,230 --> 00:00:19,730
orientation, spending a few days learning
their surroundings and practicing with the

7
00:00:19,730 --> 00:00:23,990
emergency equipment. The crews keep their
skills sharp for three main emergencies on

8
00:00:23,990 --> 00:00:27,260
board: fire, depressurization and toxic chemicals.

9
00:00:27,260 --> 00:00:30,349
A couple of Russian cargo ships will swap
places next week.

10
00:00:30,349 --> 00:00:34,359
The Progress 54 will depart the station on
Monday and be sent into a destructive reentry

11
00:00:34,359 --> 00:00:39,129
into the atmosphere. The Progress 55 will

then launch on Wednesday and dock with the

12
00:00:39,129 --> 00:00:42,639
Russian segment of the space station about
six hours later. We'll have live coverage

13
00:00:42,639 --> 00:00:44,780
on both NASA TV and nasa.gov.

14
00:00:44,780 --> 00:00:49,449
There are many ways we study how our immune
systems respond in space. One of them actually

15
00:00:49,449 --> 00:00:51,870
takes a look at the astronaut's spit. It's
true.

16
00:00:51,870 --> 00:00:56,119
It's called the Salivary Markers study.
Saliva, as well as blood, urine and other

17
00:00:56,119 --> 00:01:00,119
samples are gathered from the crew while they're
living on board the station to better understand

18
00:01:00,119 --> 00:01:04,409
how the immune system responds to living in
space. This data will be extremely important

19
00:01:04,409 --> 00:01:08,509
when we start taking longer journeys to an
asteroid or on to Mars.

20
00:01:08,509 --> 00:01:12,189
This week's social media question is from
Rohan. He asks how much electricity the station's

21
00:01:12,189 --> 00:01:14,259
solar panels make in a day.

22
00:01:14,259 --> 00:01:18,509
Well there are eight solar arrays on the station.
Each one generates 12 kilowatts of electricity

23
00:01:18,509 --> 00:01:23,829
while in direct sunlight. And with 16 orbits
a day, that's 192 kilowatts for each array.

24
00:01:23,829 --> 00:01:29,000
That's a lot of power. For comparison, the
normal house in the U.S. uses about 30 kilowatts

25
00:01:29,000 --> 00:01:30,249
per day.

26
00:01:30,249 --> 00:01:34,240
Make sure to keep sending your questions and
comments using the hashtag #spacetoground.

27
00:01:34,240 --> 00:01:38,229
On a personal note, this is my last episode
of Space to Ground. My friends and colleagues

28
00:01:38,229 --> 00:01:42,159
will take it from here while I go explore
some opportunities outside NASA. It's been

29
00:01:42,159 --> 00:01:45,499
the honor of my life to be part of this. And
while I can't say "See you next week"