SPACE TO GROUND

1
00:00:03,140 --> 00:00:06,500
Welcome to space to ground, your weekly look
at what's happening on board ISS.

2
00:00:06,500 --> 00:00:07,500
I'm Nicole Cloutier-Lemasters.

3
00:00:07,500 --> 00:00:10,690
The space station crew has a new commander.

4
00:00:10,690 --> 00:00:14,650
NASA astronaut Steve Swanson took the reins
of the orbiting complex on Monday.

5
00:00:14,650 --> 00:00:18,620
Now on his third mission, Swanson will serve
as commander of the multinational crew until

6
00:00:18,620 --> 00:00:19,620
September.

7
00:00:19,620 --> 00:00:22,140
And, it's a much smaller team onboard this
week.

8
00:00:22,140 --> 00:00:25,890
Astronaut Rick Mastracchio, Koichi Wakata
and Mikhail Tyurin returned to earth Tuesday

9
00:00:25,890 --> 00:00:29,110
night after more than 188 days on the station.

10
00:00:29,110 --> 00:00:33,070
The three touched down in Kazakhstan wrapping
up an exciting mission that included science

11
00:00:33,070 --> 00:00:37,660
research, flying the Olympic torch and three
unplanned spacewalks for Rick Mastracchio.

12
00:00:37,660 --> 00:00:41,329
Rick and Koichi arrived back in the United
States Wednesday night and will focus on medical

13
00:00:41,329 --> 00:00:45,840
evaluations and rehabilitation for the next
several weeks.

14
00:00:45,840 --> 00:00:48,719
Osteoporosis affects more than 200 million
people around the world.

15
00:00:48,719 --> 00:00:51,059
Bone loss also affects astronauts in space.

16
00:00:51,059 --> 00:00:54,649
But, by studying crew members researchers
are learning different ways to help tackle

17
00:00:54,649 --> 00:00:56,420
this widespread issue.

18
00:00:56,420 --> 00:01:01,450
One study discovered that high-intensity resistive
exercise combined with extra vitamin D and

19
00:01:01,450 --> 00:01:05,320
proper caloric intake helps astronauts maintain
their bone mass.

20
00:01:05,320 --> 00:01:09,880
Another study found if astronauts take an
osteoporosis medication once a week, combined

21
00:01:09,880 --> 00:01:12,470
with exercise, they reduced bone loss.

22
00:01:12,470 --> 00:01:16,420

Both of these are important medical developments
for keeping astronauts healthy, but they also

23
00:01:16,420 --> 00:01:20,909
provide promising research that will help
doctors treat aging populations on earth.

24
00:01:20,909 --> 00:01:25,470
And now a question from YouTube asks “how
long can Soyuz stay docked to the ISS?

25
00:01:25,470 --> 00:01:26,470
?”

26
00:01:26,470 --> 00:01:29,190
Soyuz spacecrafts are designed to shuttle
crew members back and forth to the ISS and

27
00:01:29,190 --> 00:01:33,520
each crew launches and lands in the same Soyuz,
so they generally are docked to the station

28
00:01:33,520 --> 00:01:34,750
for around six months.

29
00:01:34,750 --> 00:01:38,619
However, if needed, they could stay in space
up for about 200 days.

30
00:01:38,619 --> 00:01:41,680
Keep sending us your questions using hashtag
space to ground!