



SPACE TO GROUND

1
00:00:00,600 --> 00:00:02,880
"HOUSTON, STATION
ON SPACE TO GROUND."

2
00:00:03,986 --> 00:00:05,840
AAAAND THEY STUCK THE LANDING!

3
00:00:07,846 --> 00:00:09,696
WELCOME TO SPACE TO
GROUND, I'M GARY JORDAN.

4
00:00:10,226 --> 00:00:11,036
THIS WEEK, HALF

5
00:00:11,036 --> 00:00:13,596
OF THE INTERNATIONAL SPACE
STATION'S INHABITANTS DEPARTED

6
00:00:13,596 --> 00:00:16,356
THE ORBITING COMPLEX AND
LANDED SAFELY IN KAZAHKSTAN.

7
00:00:17,786 --> 00:00:20,926
SHANE KIMBROUGH, SERGEY RYZHIKOV
AND ANDREY BORISENKO TOUCHED

8
00:00:20,926 --> 00:00:22,526
DOWN IN THE ASIAN
COUNTRY ON MONDAY,

9
00:00:22,956 --> 00:00:26,176
COMPLETING THEIR 173-DAY
STAY ABOARD THE STATION.

10
00:00:26,896 --> 00:00:29,836
THE TRIO CONDUCTED HUNDREDS
OF EXPERIMENTS IN BIOLOGY,

11
00:00:29,936 --> 00:00:32,336

BIOTECHNOLOGY AND EARTH
SCIENCE DURING THEIR

12

00:00:32,336 --> 00:00:33,556

NEAR-SIX-MONTH STAY.

13

00:00:34,156 --> 00:00:36,436

SHANE KIMBROUGH COMPLETED FOUR
SPACEWALKS DURING HIS STAY,

14

00:00:36,436 --> 00:00:37,786

IN PART TO HELP SET THE STATION

15

00:00:37,786 --> 00:00:39,666

UP FOR FUTURE COMMERCIAL
CREW VEHICLES.

16

00:00:40,016 --> 00:00:41,066

WELCOME HOME, GENTLEMEN.

17

00:00:41,986 --> 00:00:44,116

WITH THE THREE CREWMEMBERS
NOW BACK ON PLANET EARTH,

18

00:00:44,186 --> 00:00:45,916

THERE'S A NEW COMMANDER
ABOARD THE STATION,

19

00:00:46,326 --> 00:00:47,716

AND SHE'S STAYING
BUSY WITH SCIENCE.

20

00:00:48,516 --> 00:00:50,816

COMMANDER PEGGY WHITSON
ASSUMED COMMAND OF THE STATION

21

00:00:50,816 --> 00:00:52,316

FROM SHANE KIMBROUGH ON SUNDAY.

22

00:00:52,906 --> 00:00:55,286
THIS MARKS THE SECOND TIME SHE
HAS COMMANDED THE INTERNATIONAL

23
00:00:55,286 --> 00:00:57,506
SPACE STATION, A FIRST
FOR FEMALE ASTRONAUTS.

24
00:00:58,456 --> 00:01:00,826
BUT AFTER THE FINAL GOODBYES
TO HER FELLOW CREWMATES,

25
00:01:00,826 --> 00:01:01,936
IT WAS RIGHT BACK TO WORK.

26
00:01:02,536 --> 00:01:05,406
WHITSON TOOK AN EXAM FOR THE
LIGHTING EFFECTS EXPERIMENT THIS

27
00:01:05,406 --> 00:01:08,176
WEEK, WHICH LOOKS AT HOW THE
LIGHTS INSIDE THE STATION COULD

28
00:01:08,176 --> 00:01:10,356
AFFECT SLEEP AND
COGNITIVE PERFORMANCE,

29
00:01:10,486 --> 00:01:12,926
SPECIFICALLY HOW LED'S
WITH ADJUSTABLE BRIGHTNESS

30
00:01:12,926 --> 00:01:14,916
AND COLOR COULD IMPROVE
THESE FACTORS.

31
00:01:15,506 --> 00:01:17,936
FINDINGS FROM THIS STUDY COULD
BE APPLIED RIGHT HERE ON EARTH,

32
00:01:18,266 --> 00:01:20,366

ADJUSTING THE LIGHTING
ENVIRONMENT AT THE WORKPLACE

33

00:01:20,416 --> 00:01:23,306
AND AT HOME TO PROMOTE
ALERTNESS DURING WAKING HOURS

34

00:01:23,386 --> 00:01:25,316
AND SLEEP DURING
EVENING, RESPECTIVELY.

35

00:01:26,696 --> 00:01:29,036
THIS WEEK'S QUESTION COMES
FROM TERESA WHO WANTS

36

00:01:29,036 --> 00:01:31,426
TO KNOW HOW MANY SPACWALKING
SUITS ARE ON THE STATION

37

00:01:31,426 --> 00:01:32,556
AND IF THERE ARE SPARE PARTS.

38

00:01:32,966 --> 00:01:34,856
WELL LET'S JUST SAY THEY
HAVE EVERYTHING THEY NEED

39

00:01:35,136 --> 00:01:36,696
AND A LITTLE BIT
MORE, JUST IN CASE.

40

00:01:36,806 --> 00:01:40,936
THERE ARE 6 SPACEWALKING OR
EVA SUITS ON BOARD THE STATION.

41

00:01:41,446 --> 00:01:43,856
TWO ARE THE RUSSIAN ORLAN
SUITS AND FOUR ARE WHAT WE

42

00:01:43,856 --> 00:01:47,046
LIKE TO CALL EMUS, OR

EXTRAVEHICULAR MOBILITY UNITS.

43

00:01:47,796 --> 00:01:50,326

THERE IS A REQUIREMENT TO
HAVE REDUNDANCY HARDWARE,

44

00:01:50,366 --> 00:01:51,656

OR SPARE PARTS, ABOARD...

45

00:01:52,076 --> 00:01:52,916

AND THERE IS A LOT OF IT.

46

00:01:53,506 --> 00:01:57,066

FOR THE EMUS, THEY HAVE SPARE
GLOVES, BOOTS, HELMETS, LIGHTS,

47

00:01:57,216 --> 00:01:59,156

CAMERAS, TUBES AND MUCH MORE.

48

00:02:00,346 --> 00:02:02,316

KEEP SENDING YOUR
QUESTIONS USING THE HASHTAG