



# Space to Ground

1  
00:00:02,696 --> 00:00:04,656  
"HOUSTON, STATION  
ON SPACE TO GROUND."

2  
00:00:05,336 --> 00:00:07,816  
WELCOME TO SPACE TO  
GROUND, I'M LEAH CHESHIER.

3  
00:00:08,206 --> 00:00:09,836  
TWO ASTRONAUTS HAVE  
BEEN PREPARING

4  
00:00:09,840 --> 00:00:11,960  
FOR THEIR FIRST TRIP  
OUTSIDE THE HATCH.

5  
00:00:13,420 --> 00:00:16,296  
ON MARCH 22, NASA  
ASTRONAUTS ANNE MCCLAIN

6  
00:00:16,296 --> 00:00:18,936  
AND NICK HAGUE ARE VENTURING  
OUTSIDE OF THE AIRLOCK

7  
00:00:19,016 --> 00:00:21,686  
FOR A DAY'S WORTH OF WORK  
UPGRADING THE SPACE STATION'S

8  
00:00:21,746 --> 00:00:23,016  
POWER STORAGE CAPACITY.

9  
00:00:23,606 --> 00:00:25,856  
THIS IS THE FIRST OF  
TWO SPACEWALKS TO SWAP

10  
00:00:25,856 --> 00:00:29,836  
OUT 12 NICKEL-HYDROGEN BATTERIES  
FOR 6 LITHIUM-ION BATTERIES,

11

00:00:30,046 --> 00:00:31,236  
WHICH ARRIVED TO THE STATION

12  
00:00:31,236 --> 00:00:35,166  
IN SEPTEMBER 2018 ABOARD THE  
JAPANESE AEROSPACE EXPLORATION

13  
00:00:35,196 --> 00:00:37,386  
AGENCY'S HTV-7 VEHICLE.

14  
00:00:38,146 --> 00:00:41,436  
DURING THE WEEK, ROBOTICS  
CONTROLLERS USED THE CANADARM 2

15  
00:00:41,536 --> 00:00:43,566  
TO MOVE THE BATTERIES  
FROM THEIR STORAGE SPOT

16  
00:00:43,566 --> 00:00:45,656  
ON AN EXPOSED PALLET,  
IN PREPARATION

17  
00:00:45,706 --> 00:00:48,426  
FOR ROBOTIC INSTALLATION ONCE  
THE CREW HAS FINISHED THEIR

18  
00:00:48,516 --> 00:00:50,106  
SPACEWALKING TASKS.

19  
00:00:50,436 --> 00:00:52,466  
THIS SPACEWALK IS PART  
OF A LARGER MISSION

20  
00:00:52,506 --> 00:00:55,066  
TO REPLACE ALL 48  
NICKEL-HYDROGEN BATTERIES

21  
00:00:55,066 --> 00:00:58,526  
ON THE SPACE STATION WITH 24  
NEW LITHIUM-ION BATTERIES.

22

00:00:59,116 --> 00:01:00,696  
TO KEEP UP WITH SPACEWALK  
COVERAGE,

23

00:01:00,776 --> 00:01:04,286  
FOLLOW THE SPACE STATION ON  
TWITTER AT @SPACE\_STATION

24

00:01:04,500 --> 00:01:07,960  
OR ON FACEBOOK AT  
FACEBOOK.COM/ISS.

25

00:01:09,620 --> 00:01:12,296  
THIS WEEK, ASTRONAUTS NEW  
TO THE SPACE STATION TRIED

26

00:01:12,296 --> 00:01:14,656  
ON THEIR SPACE SUITS TO  
ENSURE A PERFECT FIT.

27

00:01:15,346 --> 00:01:19,496  
NASA ASTRONAUTS CHRISTINA  
KOCH AND NICK HAGUE PREPARED

28

00:01:19,496 --> 00:01:22,496  
FOR UPCOMING SPACEWALKS DURING  
AN ON-ORBIT VERIFICATION TEST

29

00:01:22,696 --> 00:01:23,796  
ON MARCH 18.

30

00:01:24,256 --> 00:01:27,246  
THE PAIR, WHICH JUST ARRIVED TO  
THE SPACE STATION ON MARCH 14,

31

00:01:27,546 --> 00:01:29,236  
DONNED THEIR SUITS  
IN THE QUEST AIRLOCK

32

00:01:29,326 --> 00:01:31,766  
FOR AN END-TO-END TEST  
OF ALL SUIT SYSTEMS.

33

00:01:32,386 --> 00:01:35,246  
A PROPER FIT IS IMPERATIVE  
FOR MAXIMUM MOBILITY WHILE

34

00:01:35,246 --> 00:01:36,856  
IN THE PRESSURIZED SUIT, AS WELL

35

00:01:36,856 --> 00:01:39,126  
AS SAFETY DURING THE  
EXTRAVEHICULAR ACTIVITY

36

00:01:39,126 --> 00:01:40,246  
IN THE VACUUM OF SPACE.

37

00:01:41,406 --> 00:01:43,306  
WE HAVE A QUESTION  
FROM 5TH GRADER OLIVIA,

38

00:01:43,536 --> 00:01:45,316  
WHO WONDERS HOW LONG  
IT TAKES TO GET

39

00:01:45,316 --> 00:01:46,386  
TO THE SPACE STATION FROM EARTH.

40

00:01:46,386 --> 00:01:49,556  
AS WE SAW WITH THE  
EXPEDITION 59 LAUNCH,

41

00:01:49,686 --> 00:01:50,876  
IT DOESN'T TAKE LONG AT ALL.

42

00:01:52,676 --> 00:01:56,036  
AT ONE TIME, IT TOOK ASTRONAUTS  
AND COSMONAUTS ABOUT TWO DAYS

43

00:01:56,116 --> 00:01:57,736

TO REACH THE SPACE  
STATION FROM EARTH.

44

00:01:58,446 --> 00:02:01,456

NOW, A CREW ABOARD THE RUSSIAN  
SOYUZ SPACECRAFT CAN ARRIVE

45

00:02:01,456 --> 00:02:03,936

AT THE INTERNATIONAL  
SPACE STATION IN AS LITTLE

46

00:02:04,196 --> 00:02:05,566

AS 6 HOURS AFTER LAUNCH.