



SPACE TO GROUND

1
00:00:00,386 --> 00:00:04,696
Houston, Station on space to
ground NOTHING LIKE ROBOTS

2
00:00:04,696 --> 00:00:07,196
AND SPACEWALKS TO GET
THE NEW YEAR STARTED.

3
00:00:08,036 --> 00:00:10,286
WELCOME TO SPACE TO
GROUND, I'M DAN HUOT.

4
00:00:10,576 --> 00:00:14,176
2017 IS STARTING OFF WITH
A SUPERCHARGED UPGRADE

5
00:00:14,176 --> 00:00:15,766
TO THE STATION'S POWER SYSTEM.

6
00:00:16,956 --> 00:00:19,976
SINCE NEW YEAR'S EVE, GROUND
CONTROLLERS HAVE BEEN HARD

7
00:00:19,976 --> 00:00:23,136
AT WORK USING THE DEXTRE
ROBOT TO INSTALL NEW BATTERIES

8
00:00:23,136 --> 00:00:25,496
FOR THE STATION'S POWER SYSTEM.

9
00:00:25,496 --> 00:00:28,916
LITHIUM ION BATTERIES ARE
REPLACING OLD NICKEL-HYDROGEN

10
00:00:28,916 --> 00:00:30,466
BATTERIES AND WILL BE USED

11
00:00:30,506 --> 00:00:32,856
TO STORE ELECTRICAL

ENERGY GENERATED

12

00:00:32,856 --> 00:00:34,516

BY THE STATION'S SOLAR ARRAYS

13

00:00:34,796 --> 00:00:36,816

FOR USE WHILE THE
STATION IS IN DARKNESS.

14

00:00:37,926 --> 00:00:40,336

SO FAR, THEY'VE SUCCESSFULLY
INSTALLED THREE

15

00:00:40,336 --> 00:00:43,116

OUT OF SIX NEW BATTERIES
AND REMOVED FOUR

16

00:00:43,166 --> 00:00:44,566

OUT OF TWELVE OF THE OLD.

17

00:00:45,006 --> 00:00:46,966

BUT BEFORE THOSE
ROBOTICS CAN CONTINUE,

18

00:00:46,966 --> 00:00:49,036

IT WAS TIME FOR THE FIRST
SPACEWALK OF THE NEW YEAR.

19

00:00:49,036 --> 00:00:50,736

EXPEDITION 50 COMMANDER
SHANE KIMBROUGH

20

00:00:50,976 --> 00:00:53,076

AND FLIGHT ENGINEER PEGGY
WHITSON SPENT SEVERAL HOURS

21

00:00:53,106 --> 00:00:54,256

WORKING IN THE VACUUM OF SPACE.

22

00:00:54,256 --> 00:00:57,856
THEY COMPLETED THEIR PRIMARY
TASK TO INSTALL ADAPTER PLATES

23

00:00:57,856 --> 00:01:00,566
ON THE ELECTRICAL ASSEMBLY
WHERE THE BATTERIES RESIDE,

24

00:01:00,946 --> 00:01:03,976
AND RELOCATE SEVERAL OLD
NICKEL HYDROGEN BATTERIES

25

00:01:03,976 --> 00:01:05,436
THAT WILL NO LONGER BE USED.

26

00:01:06,166 --> 00:01:09,276
THEY ALSO CONNECTED DATA CABLES
BETWEEN THE NEW BATTERIES

27

00:01:09,276 --> 00:01:11,916
AND THE ADAPTER PLATES THAT
ALLOWED GROUND CONTROLLERS

28

00:01:12,136 --> 00:01:14,346
TO DO THEIR INITIAL
CHECKS ON THE NEW CELLS.

29

00:01:15,506 --> 00:01:18,896
THIS WAS THE THIRD SPACEWALK
FOR KIMBROUGH AND THE SEVENTH

30

00:01:18,946 --> 00:01:22,076
FOR WHITSON, WHO MATCHED SUNI
WILLIAMS FOR THE MOST SPACEWALKS

31

00:01:22,146 --> 00:01:23,416
BY A FEMALE ASTRONAUT.

32

00:01:24,146 --> 00:01:26,346
THIS WEEK, ROCKET

MAN ON TWITTER WANTS

33
00:01:26,396 --> 00:01:27,726
TO KNOW WHAT THE TEMPERATURE IS

34
00:01:27,726 --> 00:01:29,966
LIKE INSIDE A SUIT
DURING A SPACEWALK.

35
00:01:30,496 --> 00:01:33,566
WELL SINCE THE SUIT IS
ESSENTIALLY A MINI-SPACECRAFT,

36
00:01:33,566 --> 00:01:35,106
THE AIR-CONDITIONING
COMES STANDARD.

37
00:01:36,276 --> 00:01:39,096
TO STAY COOL, ASTRONAUTS
WEAR THE LIQUID COOLING

38
00:01:39,096 --> 00:01:40,636
AND VENTILATION GARMENT.

39
00:01:40,916 --> 00:01:44,176
IT'S ESSENTIALLY SPACE-AGE LONG
UNDERWEAR THAT HAS A SERIES

40
00:01:44,176 --> 00:01:47,436
OF TUBES RUNNING ALONG THE
BODY THAT CARRY COLD WATER,

41
00:01:47,846 --> 00:01:50,676
ALLOWING THE CREW MEMBERS TO
COOL DOWN WHILE HARD AT WORK.

42
00:01:51,466 --> 00:01:54,436
A TEMPERATURE CONTROL KNOB
IS LOCATED ON THE FRONT

43

00:01:54,436 --> 00:01:57,806

OF THE ASTRONAUTS SUIT WHICH
THEY CAN RAISE OR LOWER AT WILL.

44

00:01:58,526 --> 00:01:59,726

AND AS I ONCE FOUND OUT,

45

00:01:59,816 --> 00:02:02,816

IT CAN GET HOT PRETTY
QUICK INSIDE ANY SPACESUIT.

46

00:02:03,496 --> 00:02:06,076

KEEP SENDING YOUR
QUESTIONS USING THE HASHTAG