



Spaceto**Ground**

1

00:00:03,149 --> 00:00:06,049

WELCOME TO SPACE TO GROUND, I'M KATHRYN
CLAYTON.

2

00:00:06,049 --> 00:00:09,360

THIS WEEK THE INTERNATIONAL SPACE STATION
CREW PREPARES FOR A BIG DELIVERY.

3

00:00:11,060 --> 00:00:14,060

NASA ASTRONAUTS JESSICA MEIR AND ANDREW MORGAN WORKED

4

00:00:14,070 --> 00:00:17,570

TO PREPARE FOR THE SPACEX DRAGON CARGO RESUPPLY LAUNCHING

5

00:00:17,570 --> 00:00:19,960

ON FRIDAY EVENING, MARCH 6TH.

6

00:00:19,960 --> 00:00:22,550

THE TEAM SPENT TIME PRACTICING THE ROBOTICS
PROCEDURES

7

00:00:22,550 --> 00:00:26,439

NECESSARY TO CAPTURE THE VEHICLE AND DOCK
IT TO STATION.

8

00:00:26,439 --> 00:00:28,300

WHEN THE SPACEX VEHICLE ARRIVES,

9

00:00:28,300 --> 00:00:30,800

ANDREW MORGAN WILL COMMAND THE CANADARM2

10

00:00:30,800 --> 00:00:32,390

TO REACH AND GRAPPLE DRAGON,

11

00:00:32,390 --> 00:00:33,710

WHILE JESSICA MEIR MONITORS

12

00:00:33,710 --> 00:00:35,910

THE DRAGON'S APPROACH AND RENDEZVOUS.

13

00:00:35,910 --> 00:00:37,910

THE TEAM ALSO SPENT TIME SPRING CLEANING

14

00:00:37,910 --> 00:00:39,660

AROUND THE STATION TO PREPARE FOR MORE

15

00:00:39,660 --> 00:00:43,050

THAN TWO TONS OF CARGO ARRIVING IN THE DRAGON.

16

00:00:43,050 --> 00:00:45,730

THANKS TO CUTTING EDGE RESEARCH ON THE SPACE
STATION,

17

00:00:45,730 --> 00:00:49,780

WE ARE ONE STEP CLOSER TO MANUFACTURING 3D
PRINTED HUMAN ORGANS.

18

00:00:50,820 --> 00:00:53,610

THIS WEEK THE CREW RAN A TEST PRINT WITHOUT
CELLS

19

00:00:53,610 --> 00:00:56,540

ON THE TECHSHOT BIOFABRICATION FACILITY.

20

00:00:56,540 --> 00:00:59,110

THE FACILITY IS A 3D PRINTER THAT COULD PRODUCE

21

00:00:59,110 --> 00:01:00,970

USABLE HUMAN ORGANS.

22

00:01:00,970 --> 00:01:02,640

THESE ORGANS MAY ONE DAY BE USED

23

00:01:02,640 --> 00:01:05,000

TO SAVE LIVES AROUND THE GLOBE.

24

00:01:05,000 --> 00:01:06,860
ONE CHALLENGE WITH 3D PRINTING ORGANS

25
00:01:06,860 --> 00:01:08,760
HAS BEEN THE TINY COMPLEX STRUCTURES

26
00:01:08,760 --> 00:01:10,550
FOUND INSIDE THE ORGANS.

27
00:01:10,550 --> 00:01:12,050
THIS FACILITY TAKES ADVANTAGE

28
00:01:12,050 --> 00:01:13,600
OF THE MICROGRAVITY ENVIRONMENT

29
00:01:13,600 --> 00:01:15,190
ON THE SPACE STATION TO MAINTAIN

30
00:01:15,190 --> 00:01:16,470
THE SHAPE OF THE STRUCTURES.

31
00:01:16,470 --> 00:01:18,360
THIS IS A SMALL STEP IN THE

32
00:01:18,360 --> 00:01:20,190
LONG TERM PLAN TO MANUFACTURE

33
00:01:20,190 --> 00:01:23,800
HUMAN ORGANS WITH A 3D PRINTER IN SPACE.

34
00:01:23,800 --> 00:01:25,040
MARCH MARKS THE CELEBRATION OF

35
00:01:25,040 --> 00:01:26,170
WOMEN'S HISTORY MONTH,

36
00:01:26,170 --> 00:01:27,890
AND THE INTERNATIONAL SPACE STATION

37

00:01:27,890 --> 00:01:30,220

AND NASA ARE CELEBRATING WOMEN'S CONTRIBUTIONS

38

00:01:30,220 --> 00:01:31,820

TO THE SPACE STATION PROGRAM.

39

00:01:31,820 --> 00:01:35,610

AS OF TODAY, 65 WOMEN HAVE FLOWN IN SPACE.

40

00:01:35,610 --> 00:01:37,920

THIS INCLUDES COSMONAUTS, ASTRONAUTS,

41

00:01:37,920 --> 00:01:41,470

PAYLOAD SPECIALISTS, AND SPACE STATION PARTICIPANTS.

42

00:01:41,470 --> 00:01:44,070

THE FIRST WOMAN IN SPACE WAS RUSSIAN COSMONAUT

43

00:01:44,070 --> 00:01:47,010

VALENTINA TERESHKOVA IN 1963

44

00:01:47,010 --> 00:01:48,930

AND THE FIRST AMERICAN WOMAN IN SPACE

45

00:01:48,930 --> 00:01:50,580

WAS SALLY RIDE, WHO FLEW ABOARD

46

00:01:50,580 --> 00:01:54,440

THE SPACE SHUTTLE STS-7 IN 1983.

47

00:01:54,440 --> 00:01:55,820

NASA ASTRONAUT SUSAN HELMS WAS

48

00:01:55,820 --> 00:01:57,580

THE FIRST FEMALE CREWMEMBER ABOARD

49

00:01:57,580 --> 00:02:00,400
THE ISS IN 2001 AND PEGGY WHITSON

50
00:02:00,400 --> 00:02:03,890
WAS THE FIRST FEMALE ISS COMMANDER IN 2008.

51
00:02:03,890 --> 00:02:06,470
IN 2010, WE HAD 4 WOMEN IN SPACE,

52
00:02:06,470 --> 00:02:08,319
THE MOST AT ONE TIME.

53
00:02:08,319 --> 00:02:09,319
AND JUST THIS YEAR

54
00:02:09,319 --> 00:02:12,230
WE ACCOMPLISHED THE FIRST ALL FEMALE EVA.

55
00:02:12,230 --> 00:02:14,260
THE CONTRIBUTIONS OF WOMEN TO THE SPACE PROGRAM

56
00:02:14,260 --> 00:02:15,819
ARE IMMEASURABLE.

57
00:02:15,819 --> 00:02:17,819
MORE INFORMATION ABOUT WOMEN IN SPACE

58
00:02:17,819 --> 00:02:20,840
CAN BE FOUND AT NASA.GOV.