



Spaceto**Ground**

1

00:00:03,110 --> 00:00:05,117

"HOUSTON, STATION ON SPACE TO GROUND."

2

00:00:05,117 --> 00:00:07,693

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

3

00:00:07,693 --> 00:00:11,045

IT WAS ANOTHER BUSY WEEK ON THE ISS, WITH
TWO SPACEWALKS,

4

00:00:11,045 --> 00:00:12,360

GROUNDBREAKING SCIENCE,

5

00:00:12,360 --> 00:00:15,255

AND PREPERATIONS FOR THE NEXT COMMERCIAL CREW
FLIGHT.

6

00:00:16,000 --> 00:00:17,560

ON FEBRUARY 28th,

7

00:00:17,560 --> 00:00:20,340

NASA ASTRONAUTS KATE RUBINS AND VICTOR GLOVER

8

00:00:20,340 --> 00:00:22,300

COMPLETED THE THIRD SPACEWALK OF THE YEAR

9

00:00:22,300 --> 00:00:25,000

AFTER SEVEN HOURS INSTALLING A MODIFICATION
KIT

10

00:00:25,000 --> 00:00:27,870

REQUIRED FOR UPCOMING SOLAR ARRAY UPGRADES.

11

00:00:27,870 --> 00:00:29,540

THE DUO WORKED TO ASSEMBLE BRACKETS

12

00:00:29,540 --> 00:00:31,900

ON ONE OF THE STATION'S POWER CHANNELS.

13

00:00:31,900 --> 00:00:34,210

THE UPGRADE WORK CONTINUED ON MARCH 5th

14

00:00:34,210 --> 00:00:36,320

WHEN RUBINS, ALONG WITH JAXA ASTRONAUT

15

00:00:36,320 --> 00:00:38,860

SOICHI NOGUCHI CONTINUED THE MODIFICATION
KIT

16

00:00:38,860 --> 00:00:41,500

INSTALLATION ON THE 4B SOLAR ARRAYS.

17

00:00:41,500 --> 00:00:43,330

THE POWER SYSTEM UPGRADES ARE NEEDED

18

00:00:43,330 --> 00:00:45,330

TO ENSURE A SUFFICIENT POWER SUPPLY

19

00:00:45,330 --> 00:00:47,189

FOR CONTINUED SCIENTIFIC RESEARCH

20

00:00:47,189 --> 00:00:49,700

AND FOR NASA'S EXPLORATION TECHNOLOGY DEMONSTRATIONS

21

00:00:49,700 --> 00:00:51,292

FOR ARTEMIS AND BEYOND,

22

00:00:51,292 --> 00:00:53,726

AS WELL AS FOR COMMERCIAL ACTIVITIES ON THE
STATION.

23

00:00:54,663 --> 00:00:56,408

"WE COULD NEVER SEE ANYTHING LIKE THIS ON
EARTH,

24

00:00:56,408 --> 00:00:58,759
SO WE ARE HAVING A GREAT TIME!"

25
00:00:59,161 --> 00:01:00,748
"AND THIS IS PRETTY COOL!"

26
00:01:01,119 --> 00:01:03,379
THE PLANT WATER MANAGEMENT INVESTIGATION

27
00:01:03,379 --> 00:01:08,211
IS TRULY A GROUNDBREAKING EXPERIMENT FOR FUTURE
SPACE EXPLORATION.

28
00:01:08,363 --> 00:01:10,701
FOOD IS A CRITICAL ELEMENT FOR SURVIVAL

29
00:01:10,701 --> 00:01:13,381
AND FINDING SOLUTIONS FOR GROWING AND STORING
FOOD

30
00:01:13,381 --> 00:01:16,231
DURING LONG DURATION MISSIONS CAN BE A CHALLENGE.

31
00:01:16,231 --> 00:01:18,981
THE PLANT WATER MANAGEMENT INVESTIGATION DEMONSTRATES

32
00:01:18,981 --> 00:01:22,271
A HYDROPONIC METHOD USING LOW GRAVITY CAPILLARY
FLUIDICS

33
00:01:22,271 --> 00:01:24,771
TO DELIVER WATER TO PLANT CHAMBERS TO HYDRATE

34
00:01:24,771 --> 00:01:27,971
AND SUSTAIN THE PLANTS FROM GERMINATION THROUGH
HARVEST.

35
00:01:27,971 --> 00:01:30,361
GROWING PLANTS IN MICROGRAVITY, NOT ONLY WILL

HELP

36
00:01:30,361 --> 00:01:31,981
THE LOGISTICAL CHALLENGE OF STORING

37
00:01:31,981 --> 00:01:33,612
THE AMOUNT OF FOOD NEEDED FOR A CREW

38
00:01:33,612 --> 00:01:35,411
DURING A LONG DURATION MISSION,

39
00:01:35,411 --> 00:01:37,131
IT WILL ALSO HELP DELIVER NUTRIENTS

40
00:01:37,131 --> 00:01:40,129
TO THE CREW THAT WOULD DIMINISH OVER TIME
IN STORED FOOD.

41
00:01:40,650 --> 00:01:42,680
THIS WEEK NASA FEATURED THE SECOND

42
00:01:42,680 --> 00:01:44,548
COMMERCIAL CREW ROTATION THAT WILL FLY

43
00:01:44,548 --> 00:01:47,587
TO THE ISS ON THE SPACEX CREW DRAGON.

44
00:01:48,164 --> 00:01:51,045
NASA'S SPACEX CREW-2 MISSION IS SCHEDULED

45
00:01:51,045 --> 00:01:54,000
TO CARRY ASTRONAUTS SHANE KIMBROUGH, MEGAN
MCARTHUR,

46
00:01:54,000 --> 00:01:58,390
JAXA ASTRONAUT AKIHIKO HOSHIDE AND ESA ASTRONAUT
THOMAS PESQUET

47

00:01:58,390 --> 00:02:00,257
TO THE ISS IN LATE APRIL.

48
00:02:00,472 --> 00:02:02,052
THE CREW TOOK THE OPPORTUNITY TO TALK

49
00:02:02,052 --> 00:02:05,172
ABOUT THEIR UPCOMING MISSION DURING A NEWS
CONFERENCE IN HOUSTON.

50
00:02:05,559 --> 00:02:07,162
"ONE OF THE THINGS YOU KNOW WE'RE LOOKING
FORWARD TO

51
00:02:07,162 --> 00:02:08,802
AT THIS POINT OBVIOUSLY IS GETTING STARTED.

52
00:02:08,802 --> 00:02:10,502
WE'VE BEEN REALLY INTENSIVELY TRAINING

53
00:02:10,502 --> 00:02:13,630
FOR ABOUT A YEAR TOGETHER AND INDIVIDUALLY,

54
00:02:13,630 --> 00:02:15,650
AND REALLY LOOKING FORWARD TO THAT MOMENT
WHERE

55
00:02:15,650 --> 00:02:18,259
THE MISSION ACTUALLY BEGINS, AND WE GET TO
TRY OUT

56
00:02:18,259 --> 00:02:20,187
ALL OF THE THINGS THAT WE'VE BEEN PREPARING
FOR

57
00:02:20,187 --> 00:02:21,575
FOR THE LAST YEAR."

58
00:02:22,178 --> 00:02:24,178

THIS IS THE THIRD CREW OF ASTRONAUTS TO FLY

59

00:02:24,178 --> 00:02:28,115

THE COMMERCIAL SPACECRAFT AS A PART OF NASA'S
COMMERCIAL CREW PROGRAM.

60

00:02:29,155 --> 00:02:31,040

WELL THAT'S SPACE TO GROUND FOR THIS WEEK.