



# Space to Ground

1

00:00:03,220 --> 00:00:07,960

WELCOME TO SPACE TO GROUND, I AM KATHRYN CLAYTON, THE INTERNATIONAL SPACE STATION

2

00:00:07,960 --> 00:00:13,130

FLURRY OF ACTIVITY WITH THE BACK TO BACK ARRIVAL OF CARGO SHIPS LOADED WITH SCIENCE

3

00:00:13,130 --> 00:00:15,520

FOR THE SPACE STATION CREW.

4

00:00:15,520 --> 00:00:20,390

EARLY SUNDAY MORNING THE SPACEX DRAGON CARGO SPACECRAFT WAS INSTALLED ON THE EA

5

00:00:20,390 --> 00:00:24,949

SIDE OF THE HARMONY MODULE 3 DAYS AFTER ITS LAUNCH FROM CAPE CANAVERAL AIR FORCE S

6

00:00:24,949 --> 00:00:26,329

IN FLORIDA.

7

00:00:26,329 --> 00:00:31,329

EUROPEAN SPACE AGENCY ASTRONAUT LUCA PARMITANO GRAPPLED THE DRAGON USING THE S

8

00:00:31,329 --> 00:00:36,330

ROBOTIC ARM, CANADARM 2, AND NASA ASTRONAUT ANDREW MORGAN PROVIDED BACKUP.

9

00:00:36,330 --> 00:00:43,200

THE SPACEX DRAGON BRINGS 5,700 POUNDS OF RESEARCH, CREW SUPPLIES AND HARDWARE TO

10

00:00:43,200 --> 00:00:47,680

DRAGON WILL SPEND ABOUT ONE MONTH AT THE STATION AND THEN RETURN TO EARTH WITH CA

11

00:00:47,680 --> 00:00:49,000

RESULTS.

12

00:00:49,000 --> 00:00:53,630

THE VERY NEXT MORNING THE RUSSIAN PROGRESS 74 CARGO RESUPPLY DOCKED TO THE PIRS D

13

00:00:53,630 --> 00:00:56,770

COMPARTMENT ON THE RUSSIAN SEGMENT OF THE SPACE STATION.

14

00:00:56,770 --> 00:01:01,520

PROGRESS 74 SPENT THREE DAYS IN ORBIT BEFORE DOCKING TO THE ISS AFTER LAUNCHING FROM

15

00:01:01,520 --> 00:01:04,100

BAIKONUR COSMODROME IN KAZAKHSTAN.

16

00:01:04,100 --> 00:01:09,420

PROGRESS ARRIVED WITH ALMOST THREE TONS OF FOOD, FUEL AND SUPPLIES FOR THE EXPEDITION

17

00:01:09,600 --> 00:01:13,460

PROGRESS 74 WILL REMAIN AT THE STATION UNTIL JULY 2020.

18

00:01:13,760 --> 00:01:18,340

THE ACTIVITY DOESN'T STOP THERE, THE RESUPPLY BRINGS LOTS OF GROUNDBREAKING SCIENCE

19

00:01:18,350 --> 00:01:21,080

THE CREW WORKING HARD.

20

00:01:21,080 --> 00:01:24,540

NUTRITION ON LONG DURATION SPACEFLIGHTS WILL CONTINUE TO BE AN IMPORTANT RESEARCH

21

00:01:24,540 --> 00:01:30,260

THE MALTING BARLEY IN MICROGRAVITY INVESTIGATION WILL TEST AN AUTOMATED MALTING PROCESS

22

00:01:30,260 --> 00:01:34,210

THEN COMPARE THE MALT PRODUCED IN SPACE TO MALT PRODUCED ON THE GROUND FOR GENETIC

23

00:01:34,210 --> 00:01:35,770

STRUCTURAL CHANGES.

24

00:01:35,770 --> 00:01:40,180

THE MALTING PROCESS CONVERTS RAW GRAIN INTO MALT BY CHANGING THE GRAINS STARCHES

25

00:01:40,180 --> 00:01:41,720

VARIOUS SUGARS.

26

00:01:41,720 --> 00:01:46,290

UNDERSTANDING HOW BARLEY RESPONDS IN MICROGRAVITY WILL HELP SCIENTISTS IDENTIFY WA

27

00:01:46,290 --> 00:01:51,130

BARLEY FOR NUTRITIONAL USES ON FUTURE LONG DURATION SPACEFLIGHT MISSIONS.

28

00:01:51,130 --> 00:01:57,460

THERE IS A SENSE OF EXCITEMENT AS PREPARATIONS FINALIZE FOR THE LAUNCH OF THE BOEING

29

00:01:58,200 --> 00:02:02,120

THE STARLINER SPACECRAFT WILL LAUNCH FROM CAPE CANAVERAL TO THE SPACE STATION FOR

30

00:02:02,130 --> 00:02:06,520

UNCREWED ORBITAL FLIGHT TEST FOR NASA'S  
COMMERCIAL CREW PROGRAM.

31

00:02:06,520 --> 00:02:10,950

THE FLIGHT TEST WILL PROVIDE VALUABLE DATA  
ON PERFORMANCE OF THE ATLAS V ROCKET, THE

32

00:02:10,950 --> 00:02:16,150

STARLINER SPACECRAFT, THE GROUND SYSTEMS, AND IN-ORBIT, DOCKING AND LANDING OPERAT