



# Space **to** Ground

1  
00:00:03,080 --> 00:00:05,360  
WELCOME TO SPACE TO GROUND, I'M ISIDRO REYNA.

2  
00:00:05,360 --> 00:00:08,980  
THIS WEEK, SCIENCE HARDWARE INSTALLATION ON STATION AND MORE.

3  
00:00:10,300 --> 00:00:14,580  
NASA ASTRONAUT ANDREW MORGAN INSTALLED NEW LIFE SCIENCE HARDWARE INSIDE THE STATION.

4  
00:00:14,599 --> 00:00:20,590  
KIBO LABORATORY CALLED THE CELL BIOLOGY EXPERIMENT FACILITY-L. THIS IS AN UPGRADED JEM

5  
00:00:20,590 --> 00:00:25,480  
USED IN VARIOUS LIFE SCIENCE EXPERIMENTS,  
SUCH AS CULTIVATING CELLS AND PLANTS.

6  
00:00:25,480 --> 00:00:30,279  
CELL AND MOLECULAR BIOLOGY RESEARCH CUTS ACROSS ALL SCIENCE DISCIPLINES IN SPACE B

7  
00:00:30,279 --> 00:00:34,540  
FROM UNDERSTANDING HOW SINGLE-CELLED ORGANISMS RESPOND TO THE CONDITIONS OF SPA

8  
00:00:34,540 --> 00:00:38,910  
TO HOW ALL OF THE VARIOUS CELLS IN A COMPLEX TISSUE – OR ORGAN – WORK TOGETHER TO H

9  
00:00:38,910 --> 00:00:42,200  
AN ORGANISM AS A WHOLE ACCLIMATE TO A FOREIGN ENVIRONMENT.

10  
00:00:42,200 --> 00:00:46,650  
BY USING BOTH THE NEWLY INSTALLED FACILITY  
WITH THE ORIGINAL FOR THE SAME EXPERIMENT,

11  
00:00:46,650 --> 00:00:50,550  
ASTRONAUTS CAN HANDLE THE PROCESSING OF MORE SAMPLES ON THE STATION.

12  
00:00:50,550 --> 00:00:55,000  
NASA ASTRONAUTS CHRISTINA KOCH AND JESSICA MEIR, WHO COMPLETED THE FIRST ALL-WOMA

13

00:00:55,000 --> 00:00:59,700

ON OCT. 18, PARTICIPATED IN A PRESS CONFERENCE FROM ORBIT ON OCT. 21.

14

00:01:00,980 --> 00:01:05,850

THE DUO ANSWERED QUESTIONS ABOUT THEIR SEVEN-HOUR, 17-MINUTE SPACEWALK, WHICH INC

15

00:01:05,850 --> 00:01:10,420

A FAILED POWER CONTROLLER, AND SEVERAL OTHER TASKS IN PREPARATION FOR FUTURE SPAC

16

00:01:10,980 --> 00:01:15,820

"I'VE DEFINITELY DRAWN ENCOURAGEMENT FROM MENTORS THAT I CAN SEE REFLECTIONS OF MY

17

00:01:15,830 --> 00:01:20,470

AND THOUGHTOUT MY LIFE, AND SO RECOGNIZING  
THAT WE MAY BE OFFERING THAT FOR FUTURE SPACE

18

00:01:20,470 --> 00:01:25,380

EXPLORERS OR EXPLORERS OF ANY KIND OR ANYONE PURSUING A DREAM, WAS DEFINITELY A PR

19

00:01:25,380 --> 00:01:26,380

AND AN HONOR."

20

00:01:26,380 --> 00:01:31,170

" FOR US, YOU KNOW WHEN WE SEE THAT MANY TIMES IN OUR LIVES IT DOES MAKE A DIFFERENC

21

00:01:31,170 --> 00:01:36,320

SOMEBODY CAN IDENTIFY WITH SOMEBODY, SOMETHING ABOUT THEM, SOMETHING, SOME KIND C

22

00:01:36,320 --> 00:01:41,140

EXPERIENCE WITH THEM WHETHER IT'S SOMETHING SIMILAR TO THEIR BACKGROUND OR EXPERIE

23

00:01:41,140 --> 00:01:46,100

OR WHAT THEY LOOK LIKE, OR THE FACT THAT THEY HAVE LONG, CURLY BROWN HAIR, WHO KNOW

24

00:01:46,100 --> 00:01:50,910

IF SOME SOMETIMES THAT MAKES IT EASIER TO  
HAVE AN INSPIRATION, HAVE A CONNECTION AND

25  
00:01:50,910 --> 00:01:52,780  
MOTIVATION FOR SOMETHING GREAT.

26  
00:01:52,780 --> 00:01:57,880  
SO IT REALLY DOES MEAN A GREAT DEAL FOR US  
TO HAVE THIS, TO SHARE THIS EXPERIENCE TOGETHER

27  
00:01:57,880 --> 00:02:02,560  
AND HOPEFULLY IT DOES INSPIRE, AND EDUCATE  
THOSE THAT WILL FOLLOW US."

28  
00:02:02,560 --> 00:02:04,470  
THIS WEEK'S QUESTION COMES FROM ALEX.

29  
00:02:04,470 --> 00:02:08,190  
SHE WANTS TO KNOW IF ASTRONAUTS CAN LISTEN TO MUSIC WHEN THEY WORK.

30  
00:02:08,190 --> 00:02:09,990  
THE ANSWER IS YES.

31  
00:02:09,990 --> 00:02:11,700  
ASTRONAUTS CAN LISTEN TO MUSIC WHEN THEY WORK.

32  
00:02:11,700 --> 00:02:16,280  
IN FACT, MUSIC HAS BEEN INTERWOVEN THROUGHOUT SPACEFLIGHT HISTORY, FROM PRE-LAUNCH

33  
00:02:16,280 --> 00:02:17,880  
TO SHUTTLE WAKE-UP CALLS.

34  
00:02:17,880 --> 00:02:22,200  
ADDITIONALLY, FLIGHT PLANNERS ON EARTH SCHEDULE TIME EACH DAY FOR ASTRONAUTS TO REHEARSE

35  
00:02:22,200 --> 00:02:23,550  
HAVE SOME FUN.

36  
00:02:23,550 --> 00:02:27,630  
SOME CREWMEMBERS BRING THEIR OWN MUSICAL INSTRUMENTS TO THE STATION TO SHARE THEM

37

00:02:27,630 --> 00:02:30,880

FELLOW CREW MEMBERS – LIVE IN SPACE!