



**Space**to**Ground**

1  
00:00:02,980 --> 00:00:04,900  
"HOUSTON, STATION ON SPACE TO GROUND."

2  
00:00:05,040 --> 00:00:07,660  
WELCOME TO SPACE TO GROUND, I'M ISIDRO REYNA.

3  
00:00:07,660 --> 00:00:13,000  
WITH TWO SPACEWALKS DOWN, WE'RE HALFWAY  
THROUGH THE MISSION TO REPAIR A MAJOR ASTROPHYSICS EXPERIMENT.

4  
00:00:14,660 --> 00:00:19,500  
ANDREW MORGAN OF NASA AND LUCA PARMITANO OF THE EUROPEAN SPACE AGENCY COMPLETE

5  
00:00:19,510 --> 00:00:24,320  
SECOND SPACEWALK TO REPAIR THE ALPHA MAGNETIC SPECTROMETER ON NOVEMBER 22nd.

6  
00:00:24,320 --> 00:00:28,189  
THE WORK CLEARS THE WAY FOR PARMITANO AND MORGAN'S NEXT SPACEWALK IN THE REPAIR S

7  
00:00:28,189 --> 00:00:29,800  
ON MONDAY, DECEMBER 2nd.

8  
00:00:29,800 --> 00:00:34,090  
THEY'VE BEEN PRACTICING THE SKILLS NEEDED  
TO BYPASS THE OLD THERMAL CONTROL SYSTEM BY

9  
00:00:34,090 --> 00:00:37,710  
ATTACHING A NEW ONE AND CONNECTING IT TO THOSE NOW SLICED STEEL TUBES.

10  
00:00:37,710 --> 00:00:42,710  
A FOURTH SPACEWALK WILL FOCUS ON LEAK CHECKS AND INSTALLING INSULATION ON AMS TO K

11  
00:00:42,710 --> 00:00:44,530  
RUNNING FOR YEARS TO COME.

12  
00:00:44,530 --> 00:00:48,739  
AS MILLIONS OF AMERICANS ENJOYED TURKEY AND DRESSING THIS WEEK ON EARTH, THE SPACE

13

00:00:48,740 --> 00:00:51,989

CREW ENJOYED THEIR OWN THANKSGIVING FEAST ABOARD THE STATION.

14

00:00:52,560 --> 00:00:55,000

"WE'VE GOT VEGETABLES OF COURSE.

15

00:00:55,000 --> 00:00:59,870

GREEN BEANS AND POTATOES, AND OF COURSE, SMOKED TURKEY IN A POUCH."

16

00:00:59,870 --> 00:01:01,340

"CORNBREAD DRESSING.

17

00:01:01,340 --> 00:01:05,300

THIS WILL BE GREAT, WE CAN MAYBE STUFF IT  
INSIDE THE TURKEY JUST TO MAKE IT LIKE A REAL STUFFING."

18

00:01:05,600 --> 00:01:08,660

"I WANT TO KNOW WHO'S GOING TO CRAVE THE TURKEY ONCE IT COMES OUT OF THAT POUCH."

19

00:01:08,800 --> 00:01:11,260

"AND OF COURSE JELLIED CRANBERRY SAUCE IN  
A CAN.

20

00:01:11,260 --> 00:01:15,050

SO, A CAN JUST LIKE YOU GET AT HOME, AND OF  
COURSE IT'S GOT TO STAY IN THE SHAPE OF THE

21

00:01:15,050 --> 00:01:17,140

CAN AFTER YOU OPEN IT UP."

22

00:01:17,940 --> 00:01:22,000

ASTRONAUTS COULD ONE DAY REMOTELY CONTROL MOON AND MARS ROVERS FROM ORBIT.

23

00:01:23,220 --> 00:01:28,260

LUCA PARMITANO CONDUCTED AN EUROPEAN SPACE AGENCY EXPERIMENT KNOWN AS ANALOG-

24

00:01:28,270 --> 00:01:33,340

IF ON-ORBIT CREWS, SCIENTISTS ON THE GROUND AND NEW TECHNOLOGY CAN WORK TOGETHER

25  
00:01:33,340 --> 00:01:35,540  
A ROVER ON A SIMULATED LUNAR MISSION.

26  
00:01:35,540 --> 00:01:39,860  
THIS PROJECT INVESTIGATES HOW EFFECTIVELY  
AN ASTRONAUT ON THE INTERNATIONAL SPACE STATION,

27  
00:01:39,860 --> 00:01:42,860  
CAN OPERATE A ROVER ON A MOON-LIKE TERRAIN ON EARTH.

28  
00:01:42,860 --> 00:01:46,970  
THE ROVER IS TASKED WITH COLLECTING ROCK AND SOIL SAMPLES, THEN REMOTELY INVESTIGATING

29  
00:01:46,970 --> 00:01:48,060  
THE SAMPLES.

30  
00:01:48,060 --> 00:01:53,910  
ANALOG-1 IS THE FINAL STEP IN ESA'S ONGOING  
METERON OR MULTI-PURPOSE END-TO-END ROBOTICS

31  
00:01:53,910 --> 00:01:59,070  
OPERATIONS NETWORK PROJECT, WHICH IS AN INITIATIVE TO DEVELOP AND TEST ROBOTICS, COMMUNICATIONS

32  
00:01:59,070 --> 00:02:04,000  
AND OPERATIONS INNOVATIONS THAT ASTRONAUTS COULD USE TO EXPLORE THE SOLAR SYSTEM