



Spaceto**Ground**

1
00:00:03,040 --> 00:00:05,270
"HOUSTON, STATION ON SPACE TO GROUND."

2
00:00:05,270 --> 00:00:07,560
WELCOME TO SPACE TO GROUND, I'M GARY JORDAN.

3
00:00:07,560 --> 00:00:12,210
THE FIRST OF A SERIES OF COMPLICATED SPACEWALKS TO REPAIR A PARTICLE PHYSICS EXPERIMENT

4
00:00:12,210 --> 00:00:14,480
NOW COMPLETE.

5
00:00:14,480 --> 00:00:19,380
ANDREW MORGAN OF NASA AND LUCA PARMITANO OF THE EUROPEAN SPACE AGENCY SUITED UP

6
00:00:19,380 --> 00:00:24,740
TIME OUTSIDE THE INTERNATIONAL SPACE STATION PREPARING THE WORKSITE AROUND THE ALPHA

7
00:00:25,360 --> 00:00:30,430
THIS PARTICLE PHYSICS DETECTOR HAS BEEN ATTACHED TO THE SPACE STATION SINCE 2011, AND

8
00:00:30,430 --> 00:00:35,560
MORE THAN 100 BILLION PARTICLES THAT MAY
PROVIDE SCIENTISTS WITH MORE ABOUT ANTIMATTER,

9
00:00:35,560 --> 00:00:39,890
DARK MATTER, COSMIC RAYS, AND THE FORMATION OF THE UNIVERSE.

10
00:00:39,890 --> 00:00:44,380
MORGAN AND PARMITANO WILL BE REPLACING COOLING PUMPS IN UPCOMING SPACEWALKS, AND

11
00:00:44,380 --> 00:00:48,040
OF THE FIRST SPACEWALK PREPARING THEIR WORKSITE AND REMOVING A DEBRIS SHIELD.

12
00:00:48,040 --> 00:00:53,360
HEAD TO THE AGENCY'S WEBSITE TO LEARN HOW AND WHEN TO WATCH THESE SPACEWALKS LIVE

13

00:00:53,360 --> 00:00:57,910

THE SPACE STATION PROVIDES A GREAT PLATFORM TO HELP UNDERSTAND THE ENVIRONMENT O

14

00:00:57,910 --> 00:01:01,380

ANOTHER EXPERIMENT INVESTIGATES ITS INFLUENCE ON MATERIALS.

15

00:01:01,380 --> 00:01:06,510

MISSE IS A FACILITY THAT IS MOUNTED ON THE
OUTSIDE OF THE SPACE STATION, AND ALLOWS TRAYS

16

00:01:06,510 --> 00:01:10,630

OF MATERIALS TO BE SENT OUTSIDE THROUGH AN AIRLOCK TO SEE WHAT HAPPENS WHEN THEY'

17

00:01:10,630 --> 00:01:12,970

EXPOSED TO THE HARSH ENVIRONMENT OF SPACE.

18

00:01:12,970 --> 00:01:17,180

ASTRONAUTS ON THE SPACE STATION RETRIEVED SAMPLES AND STOWED THEM FOR LATER ANAL

19

00:01:17,920 --> 00:01:22,180

THIS WEEK'S QUESTION COMES FROM VERONICA, WHO ASKED IF THE ALPHA MAGNETIC SPECTRO

20

00:01:22,180 --> 00:01:25,020

WILL REMAIN WITHOUT A DEBRIS SHEILD AFTER
THE WORK IS DONE.

21

00:01:25,180 --> 00:01:29,020

SPACEWALK OFFICER JOHN MULARSKI ANSWERED THIS QUESTION IN A BRIEFING THAT SET THE S

22

00:01:29,030 --> 00:01:30,480

FOR ALL THE WORK BEING DONE.

23

00:01:30,480 --> 00:01:35,240

"THE DEBRIS SHIELD, THERE WON'T BE A NEW ONE INSTALLED DUE TO POSITION OF AMS.

24

00:01:35,240 --> 00:01:39,479

THAT DEBRIS SHIELD ISN'T NEEDED IN THE FUTURE, AND SO WE'LL JUST CLOSE IT OUT WITH SOME

25

00:01:39,479 --> 00:01:42,740

BLANKETS TO PROTECT THE AREA THAT WE'VE OPENED UP."