



Space**to**Ground

1

00:00:03,189 --> 00:00:05,930

WELCOME TO SPACE TO GROUND, I'M SANDRA JONES.

2

00:00:05,930 --> 00:00:09,480

THIS WEEK SCIENCE AND RESEARCH ABOARD ABOARD THE INTERNATIONAL SPACE STATION.

3

00:00:10,700 --> 00:00:13,220

NASA ASTRONAUTS JESSICA MEIR AND ANDREW MORGAN

4

00:00:13,220 --> 00:00:18,640

HAVE BEEN BUSY CONDUCTING RESEARCH RELATED
TO BONE LOSS AS PART OF THE OSTEOOMICS2 EXPERIMENT.

5

00:00:18,650 --> 00:00:21,380

USING THE UNIQUE MICROGRAVITY ENVIRONMENT
OF THE SPACE STATION,

6

00:00:21,380 --> 00:00:25,680

THIS INVESTIGATION COMPARES THE GENETIC EXPRESSION IN SPACE OF A TYPE OF BONE CELL

7

00:00:25,680 --> 00:00:28,830

CALLED OSTEOBLASTS TO SAMPLES BACK ON EARTH.

8

00:00:28,830 --> 00:00:31,890

BY GLEANING INSIGHT INTO HOW BONE LOSS OCCURS
IN SPACE,

9

00:00:31,890 --> 00:00:35,350

RESEARCHERS ON THE GROUND WILL HAVE A BETTER
UNDERSTANDING OF OSTEOPEROSIS

10

00:00:35,350 --> 00:00:38,199

WHICH CAN ENABLE THE DEVELOPMENT OF POTENTIAL COUNTERMEASURES

11

00:00:38,199 --> 00:00:41,660

TO SLOW OR STOP THE PROGRESSION OF THE DISEASE.

12

00:00:41,660 --> 00:00:45,629

FOLLOWING A SERIES OF SUCCESSFUL SPACEWALKS
ON THE ALPHA MAGNETIC SPECTROMETER,

13

00:00:45,629 --> 00:00:47,960

THE DEVICE IS BACK UP AND RUNNING BETTER THAN
EVER.

14

00:00:49,280 --> 00:00:51,719

LAST MONTH NASA ASTRONAUT ANDREW MORGAN

15

00:00:51,719 --> 00:00:54,639

AND EUROPEAN SPACE AGENCY ASTRONAUT LUCA PARMITANO

16

00:00:54,639 --> 00:00:57,460

COMPLETED THE FINAL SPACEWALK TO REPAIR A
COOLING PUMP

17

00:00:57,460 --> 00:00:59,800

ON THE ALPHA MAGNETIC SPECTROMETER.

18

00:00:59,800 --> 00:01:01,769

THE PAYLOAD OPERATIONS CONTROL CENTER IN GENEVA

19

00:01:01,769 --> 00:01:04,479

HAS REPORTED THAT AMS HAS SINCE BEEN POWERED
ON

20

00:01:04,479 --> 00:01:06,740

AND IS BACK IN BUSINESS COLLECTING PARTICLES

21

00:01:06,740 --> 00:01:09,330

TO FURTHER OUR UNDERSTANDING OF DARK MATTER,

22

00:01:09,330 --> 00:01:11,420

ANTI MATTER AND THE ORIGINS OF THE UNIVERSE.

23

00:01:12,100 --> 00:01:16,740

COMING SOON TO STATION, SPACE-X's 20th DRAGON
CARGO RESUPPLY SHIP.

24

00:01:16,750 --> 00:01:19,750

THIS VEHICLE WILL BLAST OFF FROM SPACE LAUNCH
COMPLEX 40

25

00:01:19,750 --> 00:01:22,010

AT CAPE CANAVERAL AIR FORCE STATION IN FLORIDA

26

00:01:22,010 --> 00:01:26,380

CONTAINING A VARIETY OF SCIENCE INVESTIGATIONS,
SUPPLIES AND EQUIPMENT.

27

00:01:26,380 --> 00:01:30,000

RESEARCH HIGHLIGHTS INCLUDE EXPERIMENTS FOCUSED ON PARTICLE FOAM MANUFACTURING,

28

00:01:30,000 --> 00:01:33,580

WATER DROPLET FORMATION AND OTHER CUTTING-EDGE INVESTIGATIONS.

29

00:01:34,180 --> 00:01:36,540

THIS WEEK'S QUESTION COMES FROM REY WHO
WANTS TO KNOW

30

00:01:36,540 --> 00:01:39,340

WHAT THE MINIMUM AGE REQUIRED TO BE AN ASTRONAUT IS?

31

00:01:39,340 --> 00:01:42,060

THERE IS NO MINIMUM AGE REQUIRED TO BE AN
ASTRONAUT.

32

00:01:42,060 --> 00:01:43,590

THE BASIC REQUIREMENTS INLCUDE US CITIZENSHIP,

33

00:01:43,590 --> 00:01:46,270

A MASTER'S DEGREE IN A STEM FIELD,

34

00:01:46,270 --> 00:01:48,970

2 YEARS RELATED PROFESSIONAL EXPERIENCE

35

00:01:48,970 --> 00:01:52,050

AND THE ABILITY TO PASS A NASA ASTRONAUT PHYSICAL.

36

00:01:52,050 --> 00:01:54,620

IF YOU MEET THESE REQUIREMENTS, GET YOUR RESUME READY.

37

00:01:54,620 --> 00:01:58,680

WE WILL OFFICIALLY BEGIN ACCEPTING APPLICATIONS ON MONDAY MARCH 2ND.

38

00:01:58,680 --> 00:02:03,820

FOR MORE INFORMATION ABOUT APPLICATION CHECK
OUT [NASA.GOV/ASTRONAUTS](https://www.nasa.gov/astroauts).