



SPACE TO GROUND

1
00:00:00,386 --> 00:00:03,066
HOUSTON, STATION
ON SPACE TO GROUND.

2
00:00:03,066 --> 00:00:03,886
IT'S A BIRD!

3
00:00:04,066 --> 00:00:05,266
IT'S A PLANE!

4
00:00:05,266 --> 00:00:06,726
IT'S....CUBESATS.

5
00:00:07,776 --> 00:00:09,956
WELCOME TO SPACE TO
GROUND, I'M DAN HUOT.

6
00:00:10,246 --> 00:00:13,616
A VERITABLE FLEET OF SMALL
SATELLITES WERE SLINGSHOT

7
00:00:13,616 --> 00:00:15,456
INTO ORBIT FROM STATION
THIS WEEK.

8
00:00:16,286 --> 00:00:19,326
ALL WERE DEPLOYED FROM THE
NANORACKS DEVICE ON THE END

9
00:00:19,326 --> 00:00:21,276
OF THE JAPANESE ROBOTIC ARM.

10
00:00:21,596 --> 00:00:24,906
THEY'LL BE STUDYING EVERYTHING
FROM USING STAR FIELDS

11
00:00:24,906 --> 00:00:28,316
FOR NAVIGATION TO COSMIC
BACKGROUND RADIATION

12

00:00:28,316 --> 00:00:29,386

TO THE EARTH ITSELF.

13

00:00:30,166 --> 00:00:32,126

ONE HIGHLIGHT IS THE ICECUBE,

14

00:00:32,256 --> 00:00:34,776

WHICH WILL PERFORM
FIRST-OF-A-KIND MEASUREMENTS

15

00:00:35,046 --> 00:00:36,856

OF ICE PARTICLES IN CLOUDS,

16

00:00:37,276 --> 00:00:40,456

WHICH COULD HELP UNDERSTAND
HOW CLOUD ICE AFFECTS WEATHER

17

00:00:40,736 --> 00:00:43,766

AND HOW CLOUDS PROCESS
ATMOSPHERIC RADIATION.

18

00:00:44,546 --> 00:00:47,996

ANOTHER IS THE COLLECTION
OF QB50 SATELLITES,

19

00:00:48,276 --> 00:00:50,556

WHICH CAME FROM COUNTRIES
AROUND THE WORLD

20

00:00:50,846 --> 00:00:53,206

TO STUDY A PREVIOUSLY
INACCESSIBLE ZONE

21

00:00:53,206 --> 00:00:55,406

OF THE ATMOSPHERE
CALLED THE THERMOSPHERE.

22

00:00:56,246 --> 00:00:59,026

IF YOU SEE SOMETHING GROWING
IN YOUR SPACE STATION,

23

00:00:59,076 --> 00:01:01,446

YOU PROBABLY WANT TO
FIND OUT WHAT IT IS.

24

00:01:01,476 --> 00:01:03,816

ONE STUDY IS LOOKING
TO DO JUST THAT.

25

00:01:04,816 --> 00:01:07,916

THE GENES IN SPACE-3
INVESTIGATION IS BUILDING

26

00:01:07,916 --> 00:01:09,506

ON THE WORK DONE PREVIOUSLY

27

00:01:09,766 --> 00:01:12,366

WITH DNA SEQUENCING
AND AMPLIFICATION.

28

00:01:12,896 --> 00:01:16,296

TO PUT IT SIMPLY, THE STUDY
WANTS TO DEVELOP AN EASY WAY

29

00:01:16,296 --> 00:01:19,696

FOR ASTRONAUTS TO TAKE A SAMPLE
OF SOMETHING, PROCESS IT,

30

00:01:19,916 --> 00:01:23,316

THEN USE NEW TECHNOLOGIES
TO FIND OUT WHAT IT IS.

31

00:01:23,626 --> 00:01:25,646

THIS COULD BE AN
INCREDIBLY USEFUL TOOL

32

00:01:25,646 --> 00:01:28,496

FOR TESTING MICROBES FOUND

INSIDE A SPACE STATION,

33

00:01:28,906 --> 00:01:31,366
DIAGNOSING POTENTIALLY
INFECTIOUS DISEASES

34

00:01:31,586 --> 00:01:34,046
AND MONITORING CREW
HEALTH IN SPACE.

35

00:01:34,356 --> 00:01:37,126
THIS COULD EVEN BE USED
BY FUTURE EXPLORERS

36

00:01:37,166 --> 00:01:41,176
TO DETECT DNA-BASED SIGNS OF
LIFE ON PLANETS LIKE MARS.

37

00:01:41,736 --> 00:01:45,206
THIS WEEK'S TWITTER QUESTION
COMES FROM GRACE RITTER

38

00:01:45,206 --> 00:01:47,936
WHO WANTED TO KNOW HOW
ASTRONAUTS KEEP CLEAN IN SPACE.

39

00:01:48,536 --> 00:01:50,916
WELL WATER IS A PRECIOUS
RESOURCE IN SPACE,

40

00:01:50,966 --> 00:01:52,476
SO THERE'S NO HOT SHOWERS.

41

00:01:52,576 --> 00:01:55,906
ASTRONAUTS ESSENTIALLY
TAKE SPONGE BATHS,

42

00:01:55,906 --> 00:01:59,386
USING A SMALL AMOUNT OF
WATER AND SOAP TO STAY CLEAN.

43

00:01:59,536 --> 00:02:02,556

THEY ALSO HAVE SHAMPOO
AVAILABLE TO WASH THEIR HAIR

44

00:02:02,686 --> 00:02:04,606

AND CAN SHAVE JUST
LIKE HERE ON EARTH.

45

00:02:05,146 --> 00:02:07,576

THEY ALSO HAVE THE
ABILITY TO GET HAIRCUTS,

46

00:02:07,626 --> 00:02:10,336

USING A SPECIAL CLIPPER
WITH A VACUUM ATTACHED

47

00:02:10,626 --> 00:02:12,346

TO KEEP LOOSE HAIR
FROM FLOATING AWAY.

48

00:02:13,186 --> 00:02:15,926

ONE DOWNSIDE OF NO SINKS
WITH RUNNING WATER THOUGH:

49

00:02:16,226 --> 00:02:18,506

MOST ASTRONAUTS SWALLOW
THEIR TOOTHPASTE.

50

00:02:19,606 --> 00:02:22,146

KEEP SENDING YOUR
QUESTIONS USING THE HASHTAG