



Spaceto**Ground**

1
00:00:03,030 --> 00:00:05,630
WELCOME TO SPACE TO GROUND, I'M SANDRA JONES.

2
00:00:05,630 --> 00:00:08,500
THIS WEEK A SCIENCE INVESTIGATION IS UNDERWAY
THAT COULD

3
00:00:08,500 --> 00:00:11,660
IMPROVE OUR UNDERSTANDING OF HURRICANE INTENSIFICATION,

4
00:00:11,660 --> 00:00:13,950
AND THE LATEST SPACE STATION CREW MEMBERS HAVE BEEN

5
00:00:13,950 --> 00:00:16,520
BUSY ADJUSTING TO LIFE BACK IN SPACE.

6
00:00:17,460 --> 00:00:20,680
NOT ALL SCIENCE EXPERIMENTS ABOARD THE INTERNATIONAL SPACE STATION

7
00:00:20,680 --> 00:00:23,520
REQUIRE HEAVY CREW INVOLVMENT THANKS TO INCREASING

8
00:00:23,520 --> 00:00:25,990
AUTOMATION AND COORDINATION WITH GROUND TEAMS.

9
00:00:25,990 --> 00:00:29,760
THE EUROPEAN SPACE AGENCY'S ATMOSPHERE-SPACE INTERACTIONS MONITOR

10
00:00:29,760 --> 00:00:31,620
IS ONE SUCH EXAMPLE.

11
00:00:31,620 --> 00:00:35,039
THIS EARTH OBSERVATION FACILITY STUDIES SEVERE
THUNDERSTORMS

12
00:00:35,039 --> 00:00:37,350
AND THEIR ROLE IN THE EARTH'S ATMOSPHERE
AND CLIMATE

13
00:00:37,350 --> 00:00:39,640
USING UPPER-ATMOSPHERIC LIGHTNING.

14
00:00:39,640 --> 00:00:42,899
THIS LIGHTNING, ALSO KNOWN AS TRANSIENT LUMINOUS EVENTS

15
00:00:42,899 --> 00:00:44,880
OR TERRESTRIAL GAMMA-RAY FLASHES,

16
00:00:44,880 --> 00:00:48,399
OCCUR WELL ABOVE THE ALTITUDES OF NORMAL LIGHTNING AND STORM CLOUDS,

17
00:00:48,399 --> 00:00:53,160
AND INCLUDES PHENOMENA WITH NAMES LIKE RED
SPRITES, BLUE JETS, AND ELVES.

18
00:00:53,160 --> 00:00:56,520
THE SPACE STATION'S LOW-EARTH ORBIT PROVIDES
AN IDEAL PLATFORM

19
00:00:56,520 --> 00:00:59,249
FOR MEASURING UPPER-ATMOSPHERIC LIGHTNING.

20
00:00:59,249 --> 00:01:01,270
BY STUDYING UPPER-ATMOSPHERIC LIGHTNING,

21
00:01:01,270 --> 00:01:04,180
WE CAN IMPROVE OUR KNOWLEDGE OF THE EFFECTS
OF DUST STORMS,

22
00:01:04,180 --> 00:01:08,100
POLLUTANTS FROM CITIES, FOREST FIRES, VOLCANO
ON CLOUD FORMATION

23
00:01:08,100 --> 00:01:12,570
AND ELECTRIFICATION AS WELL AS OUR UNDERSTANDING
OF HURRICANE INTENSIFICATION

24
00:01:12,570 --> 00:01:15,870
AND THE RELATION TO EYE-WALL LIGHTNING ACTIVITY.

25
00:01:15,870 --> 00:01:18,770
THIS INSIGHT COULD BE ESPECIALLY BENEFICIAL
BACK ON EARTH

26
00:01:18,770 --> 00:01:22,350
AS JUNE 1ST MARKED THE OFFICIAL BEGINNING
OF THE ATLANTIC HURRICANE SEASON

27
00:01:22,350 --> 00:01:25,509
AND TROPICAL ACTIVITY IS ALREADY UNDERWAY.

28
00:01:25,509 --> 00:01:30,289
NASA ASTRONAUTS BOB BEHNKEN AND DOUG HURLEY, THE LATEST SPACE STATION INHABITANTS

29
00:01:30,289 --> 00:01:33,200
HAVE BEEN BUSY ADJUSTING BACK TO LIFE IN SPACE
FOLLOWING THEIR

30
00:01:33,200 --> 00:01:37,240
HISTORIC LAUNCH ON MAY 30 ABOARD THE SPACEX
CREW DRAGON SPACECRAFT VEHICLE.

31
00:01:37,240 --> 00:01:42,219
THEY TOOK A FEW MOMENTS TO REFLECT ON THEIR NEW NORMAL ON THE ORBITING OUTPOST.

32
00:01:42,600 --> 00:01:44,619
"IT'S GOING PRETTY WELL.

33
00:01:44,619 --> 00:01:50,450
WE'VE JUST GOT OVER OUR FIRST WEEK IN SPACE
THIS TRIP AND BEEN VERY BUSY.

34
00:01:50,450 --> 00:01:54,460
WE EVEN GOT TO WORK A LITTLE BIT ON SATURDAY
FIXING OUR TREADMILL,

35

00:01:54,460 --> 00:01:56,289

SO ALL IN ALL IT'S BEEN GREAT.

36

00:01:56,289 --> 00:01:59,759

IT'S GREAT TO SPEND TIME WITH CHRIS, HE'S
A GREAT CREWMATE.

37

00:01:59,759 --> 00:02:03,280

AND OF COURSE BOB AND I ARE JUST TRYING TO
GET OUR SPACE LEGS

38

00:02:03,280 --> 00:02:06,450

AND HOPEFULLY WE CAN CONTRIBUTE TO THE SCIENCE,

39

00:02:06,450 --> 00:02:10,979

AND WE'RE DOING A LOT OF TRANSFER WITH THE
HTV VEHICLE UP HERE,

40

00:02:10,979 --> 00:02:14,120

AND THEN WE'RE GETTING READY FOR SOME EVA'S
AT THE END OF THE MONTH,

41

00:02:14,120 --> 00:02:16,280

SO A LOT GOING ON RIGHT NOW."

42

00:02:16,280 --> 00:02:18,800

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

43

00:02:18,800 --> 00:02:23,280

IF YOU CAN SEE THE ISS WITHOUT THE USE OF
A TELESCOPE.

44

00:02:23,280 --> 00:02:26,599

WELL MICHAEL, THE SPACE STATION IS THE THIRD
BRIGHTEST OBJECT IN THE SKY

45

00:02:26,599 --> 00:02:29,480

AND IS EASY TO SPOT IF YOU KNOW WHEN TO LOOK

UP.

46

00:02:29,480 --> 00:02:32,780

VISIBLE TO THE NAKED EYE, IT LOOKS LIKE A
FAST-MOVING PLANE.

47

00:02:32,780 --> 00:02:35,250

YOU CAN CHECK TO SEE WHEN THE SPACE STATION
IS FLYING OVER YOU

48

00:02:35,250 --> 00:02:38,760

NEXT BY HEADING TO THE SPOT THE STATION WEBSITE.