



SPACE TO GROUND

1
00:00:00,606 --> 00:00:03,006
"HOUSTON, STATION
ON SPACE TO GROUND."

2
00:00:03,006 --> 00:00:05,296
WELCOME TO SPACE TO
GROUND, I'M DAN HUOT.

3
00:00:05,496 --> 00:00:08,746
EXPEDITION 53 BEGAN LAST
WEEKEND ON THE STATION

4
00:00:08,746 --> 00:00:12,146
WHEN THREE CREW MEMBERS SAID
FAREWELL TO THEIR HOME IN SPACE.

5
00:00:12,996 --> 00:00:16,556
PEGGY WHITSON AND JACK FISCHER
FROM NASA AND FYODOR YURCHIKHIN

6
00:00:16,606 --> 00:00:19,996
FROM ROSCOSMOS LOADED INTO
THEIR SOYUZ SPACECRAFT

7
00:00:19,996 --> 00:00:21,066
AND CLOSED THE HATCHES.

8
00:00:21,576 --> 00:00:23,256
AFTER UNDOCKING, THEY DOVE

9
00:00:23,296 --> 00:00:26,796
THROUGH THE ATMOSPHERE BEFORE A
ROUTINE LANDING IN KAZAKHSTAN.

10
00:00:27,396 --> 00:00:28,536
PEGGY WHITSON RETURNED

11
00:00:28,536 --> 00:00:31,846
AS THE MOST EXPERIENCED

AMERICAN ASTRONAUT IN HISTORY,

12

00:00:32,166 --> 00:00:36,936

WITH JUST OVER 665 DAYS SPENT
IN SPACE ACROSS THREE MISSION.

13

00:00:37,476 --> 00:00:39,866

ALONG WITH TYING THE
RECORD FOR MOST SPACEWALKS

14

00:00:39,866 --> 00:00:43,356

BY A NASA ASTRONAUT AND WORKING
ON HUNDREDS OF EXPERIMENTS,

15

00:00:43,656 --> 00:00:46,706

HER LATEST FLIGHT WAS DEFINITELY
ONE FOR THE HISTORY BOOKS.

16

00:00:47,526 --> 00:00:50,326

JACK FISCHER RETURNS WITH
HIS FIRST FLIGHT COMPLETE

17

00:00:50,326 --> 00:00:54,156

AND 136 DAYS IN SPACE NOW
ON HIS AWESOME RESUME.

18

00:00:54,156 --> 00:00:58,286

AND FYODOR YURCHIKHIN ALSO
WRAPPED UP HIS THIRD SPACEFLIGHT

19

00:00:58,516 --> 00:01:03,546

AND NOW HAS 673 DAYS TOTAL IN
SPACE, PUTTING HIM JUST AHEAD

20

00:01:03,546 --> 00:01:05,936

OF PEGGY ON THE ALL-TIME
ENDURANCE LIST.

21

00:01:06,976 --> 00:01:09,756

AND WHILE WE HERE IN

HOUSTON CONTINUE TO RECOVER

22

00:01:09,756 --> 00:01:13,356
FROM THE IMPACTS OF HURRICANE
HARVEY, THE STATION HAD EYES

23

00:01:13,356 --> 00:01:16,726
ON ANOTHER MONSTROUS STORM
CHURNING ACROSS THE ATLANTIC.

24

00:01:17,736 --> 00:01:20,816
EXTERNAL CAMERAS CAPTURED
THESE HARROWING VIEWS

25

00:01:20,816 --> 00:01:24,356
OF HURRICANE IRMA THIS WEEK,
WHICH RAPIDLY INTENSIFIED

26

00:01:24,356 --> 00:01:29,066
INTO A CATEGORY 5 STORM, THE
STRONGEST POSSIBLE LEVEL.

27

00:01:29,066 --> 00:01:34,726
WITH WINDS IN EXCESS OF 185 MPH,
THE STORM BROUGHT SEVERE WINDS

28

00:01:34,726 --> 00:01:37,356
AND RAIN TO SEVERAL
ISLANDS ACROSS THE CARIBBEAN

29

00:01:37,646 --> 00:01:40,316
AND COULD POTENTIALLY
IMPACT MAINLAND FLORIDA

30

00:01:40,320 --> 00:01:41,380
AND THE FLORIDA KEYS.

31

00:01:42,940 --> 00:01:46,100
THIS WEEK'S TWITTER QUESTION
ASKS ABOUT A DIFFERENT KIND

32

00:01:46,100 --> 00:01:48,676
OF WEATHER AND COMES
FROM @JUGGOJIIN.WHO WANTS

33

00:01:48,676 --> 00:01:51,836
TO KNOW WHAT KIND OF SPACE
WEATHER MISSION CONTROL WATCHES

34

00:01:51,836 --> 00:01:52,836
FOR THE SPACE STATION.

35

00:01:53,360 --> 00:01:54,420
THAT'S A GREAT QUESTION,

36

00:01:54,420 --> 00:01:56,820
ESPECIALLY SINCE IT MEANS
TRACKING SOMETHING YOU CAN'T

37

00:01:56,826 --> 00:01:58,276
USUALLY SEE WITH THE NAKED EYE.

38

00:01:58,756 --> 00:02:01,886
MISSION CONTROLLERS AND
DOCTORS KEEP A CLOSE WATCH

39

00:02:01,886 --> 00:02:04,366
ON THE CONDITIONS IN SPACE
JUST AROUND THE EARTH,

40

00:02:04,616 --> 00:02:07,816
FOCUSING ON THE RADIATION
AND CHARGED PARTICLES BLASTED

41

00:02:07,816 --> 00:02:09,036
INTO SPACE BY THE SUN.

42

00:02:09,286 --> 00:02:11,806
THIS IS WHAT WE MEAN WHEN

WE SAY SPACE WEATHER.

43

00:02:12,396 --> 00:02:15,616
BAD SPACE WEATHER HAS THE
POTENTIAL TO DISRUPT SATELLITES

44

00:02:15,616 --> 00:02:18,616
AND ELECTRONICS AND COULD
GIVE HUMANS A HIGHER DOSE

45

00:02:18,616 --> 00:02:21,996
OF RADIATION IF THEY ARE
EXPOSED, SAY DURING A SPACEWALK.

46

00:02:22,716 --> 00:02:25,756
FORTUNATELY, THE STATION IS
HEAVILY SHIELDED AGAINST EVENTS

47

00:02:25,796 --> 00:02:29,326
LIKE THIS AND EVEN HAS
EXTRA FORTIFIED AREAS JUST

48

00:02:29,326 --> 00:02:32,306
IN CASE THE CREW NEEDS TO
WEATHER AN ESPECIALLY BAD STORM.

49

00:02:33,616 --> 00:02:36,316
KEEP SENDING US YOUR
QUESTIONS USING THE HASHTAG