SPACE TO GROUND

1
00:00:00,386 --> 00:00:02,200
"HOUSTON, STATION
ON SPACE TO GROUND."

2
00:00:03,100 --> 00:00:05,000
FAREWELL HTV!

3
00:00:05,556 --> 00:00:07,846
WELCOME TO SPACE TO
GROUND, I'M DAN HUOT.

4
00:00:08,026 --> 00:00:11,676
THE JAPANESE HTV CARGO
CRAFT HAS LEFT THE STATION.

5
00:00:12,606 --> 00:00:15,596
AFTER BEING ATTACHED FOR MORE
THAN SIX AND A HALF WEEKS,

6
00:00:15,926 --> 00:00:18,436
THE UNMANNED CRAFT WAS
READIED FOR DEPARTURE.

7
00:00:19,146 --> 00:00:23,096
ON SUNDAY, A PALLET WITH NINE
OLD NICKEL-HYDROGEN BATTERIES

8
00:00:23,096 --> 00:00:26,216
WAS LOADED BACK INSIDE
HTV, WHICH WILL BURN

9
00:00:26,216 --> 00:00:28,786
UP WHEN IT REENTERS
EARTH'S ATMOSPHERE ALONG

10
00:00:28,786 --> 00:00:31,246
WITH OVER 3200 POUNDS OF TRASH.

11
00:00:31,816 --> 00:00:35,116

THE VEHICLE WAS DETACHED FROM
STATION BY GROUND CONTROLLERS

12
00:00:35,116 --> 00:00:36,796
ON FRIDAY MORNING, FOLLOWED

13
00:00:36,796 --> 00:00:40,486
BY ESA ASTRONAUT THOMAS
PESQUET COMMANDING THE CANADARM2

14
00:00:40,606 --> 00:00:43,526
TO RELEASE HTV INTO OPEN SPACE.

15
00:00:44,666 --> 00:00:48,016
BUT JUST BECAUSE HTV HAS LEFT
THE STATION DOESN'T MEAN ITS

16
00:00:48,016 --> 00:00:49,266
MISSION IS OVER YET.

17
00:00:49,516 --> 00:00:53,246
THE KOUNOTORI INTEGRATED
TETHER EXPERIMENT, OR KITE,

18
00:00:53,646 --> 00:00:56,986
WILL TAKE PLACE FOR ONE WEEK
FOLLOWING HTV'S DEPARTURE.

19
00:00:57,576 --> 00:01:01,446
THE SPACECRAFT WILL RELEASE A
NEARLY 2300 FOOT LONG TETHER

20
00:01:01,736 --> 00:01:04,286
ANCHORED BY A 44 POUND
WEIGHT AT THE END,

21
00:01:04,656 --> 00:01:06,546
WITH THE TETHER GATHERING
ELECTRONS

22
00:01:06,546 --> 00:01:08,246
AS IT FLIES THROUGH OUTER SPACE.

23
00:01:09,106 --> 00:01:11,806
SUCH A DEVICE CAN HAVE SOME
REALLY INTERESTING USES,

24
00:01:12,126 --> 00:01:14,536
INCLUDING IN-SPACE
PROPULSION AND CLEANING

25
00:01:14,536 --> 00:01:17,836
UP SPACE DEBRIS FLOATING
AROUND IN LOW-EARTH ORBIT.

26
00:01:18,636 --> 00:01:21,446
THIS WEEK, @KIWIBACON
ON TWITTER ASKED

27
00:01:21,446 --> 00:01:23,116
IF WE COULD DESCRIBE THE CHANGES

28
00:01:23,316 --> 00:01:25,856
IN THE STATION'S
ORIENTATION DURING THE ARRIVAL

29
00:01:25,856 --> 00:01:27,446
OR DEPARTURE OF SPACECRAFT.

30
00:01:27,716 --> 00:01:29,846
WE SURE CAN KIWI,
SINCE THESE DAYS IT IS

31
00:01:29,916 --> 00:01:30,916
PRETTY STRAIGHTFORWARD.

32
00:01:31,656 --> 00:01:34,856
EVERY VISITING SPACECRAFT
REQUIRES THE STATION TO BE

33
00:01:34,856 --> 00:01:37,686
IN A SPECIFIC ORIENTATION,
OR ATTITUDE.

34
00:01:38,216 --> 00:01:40,976
HOWEVER, WE'VE GOTTEN TO THE
POINT WHERE IT'S ALWAYS CLOSE

35
00:01:40,976 --> 00:01:43,916
TO OUR NORMAL ORIENTATION,
WHICH HAS THE BOTTOM

36
00:01:43,916 --> 00:01:45,926
OF STATION POINTED
TOWARDS THE EARTH.

37
00:01:46,696 --> 00:01:49,316
THERE ARE DIFFERENCES IN HOW
THE STATION IS CONTROLLED

38
00:01:49,316 --> 00:01:52,966
FOR DIFFERENT VEHICLES, WITH OUR
LARGE GYROSCOPES STEADYING THE

39
00:01:52,966 --> 00:01:57,226
STATION FOR VEHICLES LIKE HTV
OR U.S. COMMERCIAL CARGO SHIPS,

40
00:01:57,656 --> 00:02:00,736
AND THRUSTERS ON THE RUSSIAN
SEGMENT USED FOR VEHICLES

41
00:02:00,766 --> 00:02:02,426
LIKE SOYUZ OR PROGRESS.

42
00:02:03,476 --> 00:02:06,046
KEEP SENDING YOUR
QUESTIONS USING THE HASHTAG