



**Space to Ground**

1  
00:00:03,429 --> 00:00:06,000  
WELCOME TO SPACE TO GROUND, I'M DAN HUOT.

2  
00:00:06,000 --> 00:00:08,710  
2020 WAS...A YEAR.

3  
00:00:08,710 --> 00:00:11,857  
WHILE WE ALL FACED UNPRECEDENTED CHALLENGES  
HERE ON EARTH,

4  
00:00:11,857 --> 00:00:14,490  
THIS YEAR WE REACHED NEW HEIGHTS AND CELEBRATED

5  
00:00:14,490 --> 00:00:16,960  
A HISTORIC MILESTONE IN THE LIFE

6  
00:00:16,960 --> 00:00:18,978  
OF THE INTERNATIONAL SPACE STATION.

7  
00:00:23,235 --> 00:00:24,520  
FOR THE FIRST TIME SINCE

8  
00:00:24,520 --> 00:00:27,930  
THE END OF THE SPACE SHUTTLE PROGRAM IN 2011,

9  
00:00:27,930 --> 00:00:29,980  
WE LAUNCHED AMERICAN ASTROANUTS,

10  
00:00:29,980 --> 00:00:33,160  
ON AMERICAN ROCKETS, FROM AMERICAN SOIL.

11  
00:00:33,160 --> 00:00:36,860  
NASA'S SPACEX DEMO-2 MISSION WAS A RESOUNDING  
SUCCESS,

12  
00:00:36,860 --> 00:00:39,050  
WITH A SPACEX DRAGON DELIVERING

13  
00:00:39,050 --> 00:00:42,430  
NASA'S DOUG HURLEY AND BOB BEHNKEN FROM  
THE FLORIDA COAST

14  
00:00:42,430 --> 00:00:44,120  
TO THE INTERNATIONAL SPACE STATION

15  
00:00:44,120 --> 00:00:47,298  
AND RETURNING THEM SAFELY TO WATERS BACK HOME.

16  
00:00:47,298 --> 00:00:49,780  
IT MARKED A NUMBER OF HISTORIC FIRSTS

17  
00:00:49,780 --> 00:00:51,920  
FOR NASA AND COMMERCIAL SPACE,

18  
00:00:51,920 --> 00:00:56,050  
AND SINCE IT WENT SO WELL, WE RAN IT BACK  
JUST A FEW MONTHS LATER.

19  
00:00:56,050 --> 00:00:57,399  
THE CREW-1 MISSION,

20  
00:00:57,399 --> 00:01:00,861  
OUR FIRST FULL-DURATION MISSION ON A COMMERCIAL  
SPACECRAFT,

21  
00:01:00,861 --> 00:01:02,140  
LAUNCHED THIS NOVEMBER

22  
00:01:02,140 --> 00:01:04,930  
AND DELIVERED 4 ASTRONAUTS TO STATION,

23  
00:01:04,930 --> 00:01:07,189  
INCLUDING THE FIRST OF OUR INTERNATIONAL PARTNERS

24  
00:01:07,189 --> 00:01:08,610  
TO CATCH A RIDE.

25

00:01:08,610 --> 00:01:12,250

MIKE, VICTOR, SHANNON AND SOICHI HIT THE GROUND  
RUNNING

26

00:01:12,250 --> 00:01:14,470

AS WE CAN NOW PERMANENTLY INCREASE OUR

27

00:01:14,470 --> 00:01:17,100

LONG-DURATION CREW SIZE IN SPACE,

28

00:01:17,100 --> 00:01:19,360

EFFECTIVELY DOUBLING THE AMOUNT OF RESEARCH

29

00:01:19,360 --> 00:01:21,813

DONE ON THE ORBITING LAB.

30

00:01:22,198 --> 00:01:24,820

AND NOVEMBER HELD SPECIAL SIGNIFICANCE

31

00:01:24,820 --> 00:01:27,590

AS WE MARKED 20 CONTINUOUS YEARS

32

00:01:27,590 --> 00:01:29,720

OF HUMANS LIVING AND WORKING ABOARD

33

00:01:29,720 --> 00:01:31,110

THE SPACE STATION.

34

00:01:31,110 --> 00:01:36,234

TO ANYBODY WATCHING THIS RIGHT NOW, BORN AFTER  
NOVEMBER 2, 2000,

35

00:01:36,234 --> 00:01:38,400

YOU HAVE NEVER KNOWN A WORLD WHERE

36

00:01:38,400 --> 00:01:42,550

EVERY HUMAN BEING WAS ON EARTH'S SURFACE

AT THE SAME TIME.

37

00:01:42,550 --> 00:01:44,570

COUNTLESS MEN AND WOMEN ACROSS THE GLOBE

38

00:01:44,570 --> 00:01:47,900

HAVE WORKED TO MAKE THE FIRST 20 YEARS OF  
WORK ON STATION

39

00:01:47,900 --> 00:01:49,909

AN ERA OF DISCOVERY,

40

00:01:49,909 --> 00:01:52,704

WHICH WE BELIEVE HAS ONLY JUST BEGUN.

41

00:01:54,110 --> 00:01:55,850

AND THAT WAS JUST A TASTE OF ALL

42

00:01:55,850 --> 00:01:58,340

THE TRIUMPHS WE PACKED INTO 2020

43

00:01:58,340 --> 00:02:01,114

FOR THE INTERNATIONAL SPACE STATION.

44

00:02:01,403 --> 00:02:02,509

THROUGHOUT THE YEAR,

45

00:02:02,509 --> 00:02:05,390

WE SAW 4 CREWED LAUNCHES FLY TO THE STATION,

46

00:02:05,390 --> 00:02:08,928

SPLIT BETWEEN THE SPACEX DRAGON AND THE RUSSIAN  
SOYUZ.

47

00:02:08,928 --> 00:02:12,000

10 NASA ASTRONAUTS, 6 RUSSIAN COSMONAUTS,

48

00:02:12,000 --> 00:02:14,500

A EUROPEAN AND A JAPANESE ASTRONAUT

49  
00:02:14,500 --> 00:02:16,569  
CALLED THE STATION HOME THIS YEAR

50  
00:02:16,569 --> 00:02:18,639  
WHERE THEY PERFORMED 8 SPACEWALKS

51  
00:02:18,639 --> 00:02:21,849  
AND WELCOMED 7 CARGO VEHICLES FROM RUSSIA,

52  
00:02:21,849 --> 00:02:24,849  
JAPAN, NORTHROP GRUMMAN AND SPACEX,

53  
00:02:24,849 --> 00:02:28,000  
INCLUDING THE NEWEST VERSION OF CARGO DRAGON.

54  
00:02:28,000 --> 00:02:30,685  
AND EARLIER THIS SPRING, NASA'S CHRISTINA  
KOCH

55  
00:02:30,685 --> 00:02:32,809  
RETURNED HOME AFTER SETTING A RECORD

56  
00:02:32,809 --> 00:02:36,169  
FOR THE LONGEST SINGLE SPACEFLIGHT BY A WOMAN.

57  
00:02:36,169 --> 00:02:37,629  
COMMERCIAL RESUPPLY MISSIONS

58  
00:02:37,629 --> 00:02:41,239  
ENABLED MORE THAN 100 NEW U.S. SCIENCE INVESTIGATIONS

59  
00:02:41,239 --> 00:02:43,499  
AND TECHNOLOGY DEMONSTRATIONS,

60  
00:02:43,499 --> 00:02:45,689  
CONTINUING TO IMPROVE ON OUR CAPABILITIES

61  
00:02:45,689 --> 00:02:47,870  
FOR THE ARTEMIS MISSIONS TO OUR MOON

62  
00:02:47,870 --> 00:02:51,249  
AND DIRECTLY BENEFITING LIFE BACK ON EARTH.

63  
00:02:51,249 --> 00:02:52,930  
WE EVEN MANANGED TO MAKE THE STATION

64  
00:02:52,930 --> 00:02:54,079  
A LITTLE BIT BIGGER,

65  
00:02:54,079 --> 00:02:56,129  
WITH THE NEW NANORACKS AIRLOCK ARRIVING

66  
00:02:56,129 --> 00:02:58,059  
AT THE END OF THE YEAR FOR INSTALLATION

67  
00:02:58,059 --> 00:03:00,907  
BEFORE 2020 COMES TO A CLOSE.

68  
00:03:03,344 --> 00:03:05,196  
WITH 2020 NOW IN THE REARVIEW,

69  
00:03:05,196 --> 00:03:09,170  
WE'RE ALREADY POISED FOR A 2021 EVERY BIT  
AS PACKED.

70  
00:03:10,182 --> 00:03:11,989  
WE'LL HIT THE GROUND RUNNING IN JANUARY

71  
00:03:11,989 --> 00:03:15,481  
WITH SPACEWALKS TO UPGRADE A NUMBER OF STATION  
SYSTEMS,

72  
00:03:15,481 --> 00:03:17,290  
ENABLING NEW SCIENCE PLATFORMS

73  
00:03:17,290 --> 00:03:18,779  
AND MAKING SURE THE STATION WILL BE

74  
00:03:18,779 --> 00:03:21,495  
FULLY CAPABLE FOR YEARS TO COME.

75  
00:03:21,804 --> 00:03:23,579  
OUR COMMERCIAL CREW PROVIDERS BOEING

76  
00:03:23,579 --> 00:03:25,269  
WILL MAKE A RUN TO STATION AGAIN

77  
00:03:25,269 --> 00:03:28,609  
IN THE REFLIGHT OF THEIR ORBITIAL FLIGHT TEST  
MISSION,

78  
00:03:28,609 --> 00:03:31,769  
SETTING US UP FOR ANOTHER HISTORIC FIRST LATER  
IN THE YEAR

79  
00:03:31,769 --> 00:03:34,979  
WHEN 3 NASA ASTRONAUTS PUT STARLINER THROUGH  
THE PACES

80  
00:03:34,979 --> 00:03:36,879  
IN ITS FIRST CREWED LAUNCH.

81  
00:03:37,505 --> 00:03:39,370  
WE'LL HAVE PLENTY OF CARGO FLIGHTS,

82  
00:03:39,370 --> 00:03:41,049  
INCLUDING THE FIRST PLANNED FLIGHT OF

83  
00:03:41,049 --> 00:03:43,819  
SIERRA NEVADA CORPORATION'S DREAM CHASER,

84  
00:03:43,819 --> 00:03:46,554

THE NEWEST ENTRANT IN OUR CARGO FLEET.

85

00:03:46,554 --> 00:03:48,200

AND AS WE CONTINUE TO EXPAND

86

00:03:48,200 --> 00:03:50,309

THE CAPABILITIES AND OPPORTUNITIES FOR

87

00:03:50,309 --> 00:03:53,459

COMMERCIAL COMPANIES ON STATION AND IN LOW-EARTH  
ORBIT,

88

00:03:53,459 --> 00:03:56,459

WE'LL BE ON THE LOOKOUT FOR NEW MILESTONES  
IN ADDING

89

00:03:56,459 --> 00:03:59,157

A COMMERCIAL MODULE AND ADDITIONAL FACILITIES,

90

00:03:59,157 --> 00:04:00,790

AND POTENTIALLY THE FIRST

91

00:04:00,790 --> 00:04:03,839

COMMERCIAL ASTRONAUT MISSION TO THE SPACE  
STATION.

92

00:04:06,603 --> 00:04:08,859

WELL, THAT WILL DO IT FOR US IN 2020.

93

00:04:08,859 --> 00:04:10,799

WE HOPE YOU GET A CHANCE TO CATCH YOUR BREATH

94

00:04:10,799 --> 00:04:13,129

OVER THE HOLIDAYS AND WERE ABLE TO SHARE

95

00:04:13,129 --> 00:04:15,719

IN SOME OF THE EXCITEMENT HUMAN SPACEFLIGHT

96

00:04:15,719 --> 00:04:18,400

BROUGHT IN THIS PRETTY UNPRECEDENTED YEAR.

97

00:04:18,400 --> 00:04:20,669

AS ALWAYS, THANK YOU FOR WATCHING

98

00:04:20,669 --> 00:04:22,310

AND KEEP SENDING IN YOUR QUESTIONS