



# Space to Ground

1

00:00:02,960 --> 00:00:05,560

WELCOME TO SPACE TO GROUND, I'M KATHRYN CLAYTON.

2

00:00:06,040 --> 00:00:10,900

THE INTERNATIONAL SPACE STATION JUST RECEIVED A FRESH DELIVERY OF OVER 4 TONS OF SCIENCE

3

00:00:10,900 --> 00:00:12,490

AND SUPPLIES.

4

00:00:14,080 --> 00:00:18,780

NORTHROP GRUMMAN'S CYGNUS CARGO VEHICLE NG-12, LAUNCHED NOVEMBER 2ND

5

00:00:18,780 --> 00:00:20,300

FROM WALLOPS VIRGINIA.

6

00:00:20,300 --> 00:00:26,200

ON NOVEMBER 4TH, EXPEDITION 61 ASTRONAUTS  
JESSICA MEIR AND CHRISTINA KOCH USED THE SPACE

7

00:00:26,210 --> 00:00:28,660

STATIONS ROBOTIC ARM TO CAPTURE CYGNUS.

8

00:00:28,660 --> 00:00:32,940

AFTER THE SUCCESSFUL BIRTHING THE WORK BEGAN TO UNLOAD OVER 8200 POUNDS

9

00:00:32,940 --> 00:00:35,000

OF CARGO INSIDE THE VEHICLE.

10

00:00:35,010 --> 00:00:39,650

WHILE THIS IS A RECORD BREAKING AMOUNT OF  
CARGO FOR CYGNUS, THE ARRIVAL OF NG-12 IS

11

00:00:39,650 --> 00:00:44,540

ALSO THE FIRST TIME TWO CYGNUS VEHICLES WILL BE IN ORBIT AT THE SAME TIME.

12

00:00:44,540 --> 00:00:50,670

NG-12 JOINS ITS PREDECESSOR NG-11, WHICH REMAINS IN ORBIT ON AN EXTENDED SECONDARY MISSION

13  
00:00:50,670 --> 00:00:52,710  
TO DEMONSTRATE THIS FUTURE CAPABILITY.

14  
00:00:52,710 --> 00:00:57,079  
NG-12 WILL REMAIN AT THE SPACE STATION UNTIL JANUARY.

15  
00:00:57,080 --> 00:01:01,940  
THIS WEEK BOEING TOOK A CRUCIAL STEP TOWARDS RETURNING AMERICAN SPACEFLIGHT LAUN

16  
00:01:03,500 --> 00:01:09,220  
BOEING'S CST-100 STARLINER SPACECRAFT COMPLETED A CRITICAL SAFETY MILESTONE ON MON

17  
00:01:09,220 --> 00:01:12,760  
END-TO-END TEST OF ITS ABORT SYSTEM IN WHITE SANDS NEW MEXICO.

18  
00:01:13,180 --> 00:01:17,880  
THE TEST VERIFIES THAT EACH OF THE STARLINER'S SAFETY SYSTEMS FUNCTION SEPARATELY A

19  
00:01:17,880 --> 00:01:22,580  
TO PROTECT ASTRONAUTS IN THE UNLIKELY EVENT OF AN EMERGENCY PRIOR TO LIFTOFF BY MO

20  
00:01:22,580 --> 00:01:24,330  
THEM SAFELY AWAY FROM THE LAUNCH PAD.

21  
00:01:24,330 --> 00:01:29,100  
DURING THE TWO MINUTE TEST, THE STARLINERS LAUNCH ABORT ENGINES AND ORBITAL MANEU

22  
00:01:29,100 --> 00:01:34,360  
AND ALTITUDE CONTROL THRUSTS FIRED TO PUSH THE SPACECRAFT ABOUT 1 MILE ABOVE LAND

23  
00:01:34,360 --> 00:01:35,910  
ONE MILE NORTH OF THE TEST STAND.

24  
00:01:35,910 --> 00:01:41,850  
THE SUCCESSFUL PAD ABORT TEST IS ANOTHER STEP TOWARDS ACHIEVING NASA'S FUTURE MIS

25  
00:01:41,850 --> 00:01:47,069

ACTIVITY OUTSIDE THE STATION WILL SOON RAMP UP AS THE CREW PREPARES FOR A SERIES OF

26

00:01:47,069 --> 00:01:49,540

TO REPAIR THE LARGEST SCIENTIFIC INSTRUMENT ON THE STATION.

27

00:01:51,070 --> 00:01:56,620

THE ALPHA MAGNETIC SPECTROMETER-02 IS A SUB-ATOMIC PARTICLE DETECTOR THAT LOOKS FOR

28

00:01:56,620 --> 00:01:58,940

ANTIMATTER AND MEASURES COSMIC RAYS.

29

00:01:59,280 --> 00:02:04,020

AMS-02 TOOK 16 COUNTRIES NEARLY 20 YEARS TO DEVELOP AND WAS INSTALLED

30

00:02:04,020 --> 00:02:06,060

ON THE SPACE STATION IN 2011.

31

00:02:06,070 --> 00:02:10,770

THE REPAIR OF THE AMS-02 COOLING SYSTEM WILL ENSURE THAT IT CAN CONTINUE TO PROVIDE

32

00:02:10,770 --> 00:02:13,000

DATA AND MORE GROUNDBREAKING SCIENCE.

33

00:02:13,520 --> 00:02:18,840

EXPERTS WILL DISCUSS PLANS FOR THE SPACEWALKS, AND THE FUTURE OF AMS-02, IN A SERIES

34

00:02:18,840 --> 00:02:23,970

ON TUESDAY, NOVEMBER 12TH ON NASA TV AND NASA.GOV.