



1
00:00:04,150 --> 00:00:02,710
good morning and welcome to mission

2
00:00:06,389 --> 00:00:04,160
control houston and the international

3
00:00:07,829 --> 00:00:06,399
space station update hour

4
00:00:09,430 --> 00:00:07,839
we're here with the international space

5
00:00:10,870 --> 00:00:09,440
station flight control team inside the

6
00:00:13,030 --> 00:00:10,880
international space station flight

7
00:00:16,150 --> 00:00:13,040
control room which is led today by

8
00:00:20,310 --> 00:00:16,160
flight director jerry jason with capcom

9
00:00:24,310 --> 00:00:21,750
onboard the space station the members of

10
00:00:26,870 --> 00:00:24,320
the expedition 33 crew are winding down

11
00:00:29,429 --> 00:00:26,880
on the end of two very busy weeks

12
00:00:31,029 --> 00:00:29,439
currently orbiting 216 miles above the

13
00:00:32,549 --> 00:00:31,039

south pacific ocean and heading toward

14

00:00:35,190 --> 00:00:32,559

the coast of mexico

15

00:00:39,030 --> 00:00:35,200

they are commander sunny williams and

16

00:00:42,069 --> 00:00:39,040

flight engineers kevin ford anki hoshide

17

00:00:46,229 --> 00:00:42,079

yuri malenchenko oleg novitskiy of

18

00:00:50,549 --> 00:00:48,470

and let's see williams malenchenko and

19

00:00:51,990 --> 00:00:50,559

hoshide launched to the station in july

20

00:00:53,110 --> 00:00:52,000

and will be heading home on november

21

00:00:56,790 --> 00:00:53,120

18th

22

00:00:59,110 --> 00:00:56,800

today is their 111th day in space

23

00:01:01,189 --> 00:00:59,120

and 109th of the space station

24

00:01:03,110 --> 00:01:01,199

their crewmates ford novitskiy and

25

00:01:05,670 --> 00:01:03,120

tarelkin just joined them last week so

26
00:01:07,990 --> 00:01:05,680
they're on their 11th day in space and

27
00:01:09,429 --> 00:01:08,000
just their ninth at the space station

28
00:01:10,789 --> 00:01:09,439
however they definitely got off to a

29
00:01:12,469 --> 00:01:10,799
running start

30
00:01:13,750 --> 00:01:12,479
in their stay which will last until

31
00:01:15,590 --> 00:01:13,760
march

32
00:01:16,950 --> 00:01:15,600
the most recent of the big events

33
00:01:20,310 --> 00:01:16,960
they've been taking place this week is

34
00:01:23,510 --> 00:01:20,320
of course yesterday's us spacewalk

35
00:01:25,350 --> 00:01:23,520
ford helped williams and hoshide on into

36
00:01:28,310 --> 00:01:25,360
their spacesuit and out the door for

37
00:01:29,910 --> 00:01:28,320
what turned out to be a 6 hour and 38

38
00:01:32,149 --> 00:01:29,920

minute space walk

39

00:01:35,350 --> 00:01:32,159

they started at 7 29 a.m central time

40

00:01:37,510 --> 00:01:35,360

yesterday and wrapped up at 207 pm

41

00:01:40,390 --> 00:01:37,520

having rerouted the station's external

42

00:01:42,069 --> 00:01:40,400

cooling system to use an old radio on

43

00:01:43,670 --> 00:01:42,079

the radiator on the port side of the

44

00:01:45,670 --> 00:01:43,680

station's truss rather

45

00:01:46,469 --> 00:01:45,680

truss rather than the usual

46

00:01:47,429 --> 00:01:46,479

uh

47

00:01:48,870 --> 00:01:47,439

one

48

00:01:50,310 --> 00:01:48,880

which teams here on the ground suspect

49

00:02:01,429 --> 00:01:50,320

may be the source of an ammonia leak

50

00:02:05,749 --> 00:02:03,990

few views here from that space walk

51
00:02:07,749 --> 00:02:05,759
preceding that there were a couple of

52
00:02:10,790 --> 00:02:07,759
significant events on wednesday first

53
00:02:11,750 --> 00:02:10,800
the arrival of the progress 49 resupply

54
00:02:13,750 --> 00:02:11,760
vehicle

55
00:02:16,869 --> 00:02:13,760
bringing with it 2050 pounds of

56
00:02:20,550 --> 00:02:16,879
propellant 62 pounds of oxygen

57
00:02:24,229 --> 00:02:20,560
42 pounds of air and 926 pounds of water

58
00:02:26,869 --> 00:02:24,239
plus 2 738 pounds of spare parts

59
00:02:28,470 --> 00:02:26,879
life support system items

60
00:02:30,630 --> 00:02:28,480
experiment hardware and maintenance

61
00:02:32,550 --> 00:02:30,640
equipment for a total delivery weight of

62
00:02:34,710 --> 00:02:32,560
2.9 tons

63
00:02:37,750 --> 00:02:34,720

and lunch from baikonur cosmodrome at 2

64

00:02:40,070 --> 00:02:37,760

41 a.m central time

65

00:02:43,110 --> 00:02:40,080

on wednesday and arrived less than five

66

00:02:46,949 --> 00:02:43,120

hours later at 8 33 a.m for a docking

67

00:02:50,869 --> 00:02:48,630

following that the thrusters on the

68

00:02:52,550 --> 00:02:50,879

progress 48 vehicle docked to the piers

69

00:02:54,550 --> 00:02:52,560

docking compartment were fired to raise

70

00:02:56,630 --> 00:02:54,560

the station's attitude

71

00:02:58,630 --> 00:02:56,640

and avoid a small fragment of debris

72

00:03:00,149 --> 00:02:58,640

from the iridium-33 satellite that

73

00:03:01,830 --> 00:03:00,159

flight controllers on the ground thought

74

00:03:05,030 --> 00:03:01,840

had a possibility of crossing paths with

75

00:03:05,990 --> 00:03:05,040

the space station in its former orbit

76

00:03:07,589 --> 00:03:06,000

the moon

77

00:03:09,030 --> 00:03:07,599

the maneuver was able to raise the

78

00:03:11,190 --> 00:03:09,040

station's orbit and get it well out of

79

00:03:13,190 --> 00:03:11,200

the way of the debris however only one

80

00:03:14,710 --> 00:03:13,200

set of thrusters on a single manifold

81

00:03:17,350 --> 00:03:14,720

the progress were used to execute the

82

00:03:19,509 --> 00:03:17,360

reboost instead of both sets on two

83

00:03:21,430 --> 00:03:19,519

manifolds

84

00:03:23,190 --> 00:03:21,440

that meant that the station's total

85

00:03:24,710 --> 00:03:23,200

attitude change was reduced from what

86

00:03:26,149 --> 00:03:24,720

had been expected

87

00:03:29,270 --> 00:03:26,159

the single manifold selection was a

88

00:03:31,190 --> 00:03:29,280

result of a software configuration

89

00:03:33,030 --> 00:03:31,200

and all the burn lasted 10 minutes and

90

00:03:35,750 --> 00:03:33,040

was automatically terminated by the

91

00:03:37,190 --> 00:03:35,760

thruster cutoff limit

92

00:03:38,550 --> 00:03:37,200

regardless as i said the station was

93

00:03:40,070 --> 00:03:38,560

still able to get out of the way of the

94

00:03:43,030 --> 00:03:40,080

debris and the crew were never in any

95

00:03:45,670 --> 00:03:43,040

danger in the end for the reboost

96

00:03:48,789 --> 00:03:45,680

increased the station's altitude by 0.18

97

00:03:50,070 --> 00:03:48,799

miles at the apogee and 0.49 miles of

98

00:03:51,750 --> 00:03:50,080

the perigee

99

00:03:55,470 --> 00:03:51,760

the station's now orbiting at an

100

00:03:57,030 --> 00:03:55,480

attitude of or altitude of

101
00:03:59,589 --> 00:03:57,040
261.3

102
00:04:01,990 --> 00:03:59,599
by 252.3

103
00:04:05,830 --> 00:04:02,000
statute miles ball systems functioning

104
00:04:09,910 --> 00:04:07,670
and the week kicked off with a farewell

105
00:04:12,229 --> 00:04:09,920
to the spacex dragon vehicle which

106
00:04:13,910 --> 00:04:12,239
wrapped up its 18-day stay at the space

107
00:04:16,390 --> 00:04:13,920
station with a successful splashdown in

108
00:04:19,670 --> 00:04:16,400
the pacific ocean it carried to the

109
00:04:22,710 --> 00:04:19,680
station 882 pounds of cargo including

110
00:04:26,230 --> 00:04:22,720
260 pounds of crew supplies

111
00:04:29,510 --> 00:04:26,240
390 pounds of scientific research

112
00:04:31,990 --> 00:04:29,520
225 pounds of hardware

113
00:04:33,909 --> 00:04:32,000

and perhaps more exciting

114

00:04:36,469 --> 00:04:33,919

uh since it's been a while since we've

115

00:04:39,030 --> 00:04:36,479

been able to return large amounts of

116

00:04:43,189 --> 00:04:39,040

deliveries to the earth it undocked with

117

00:04:45,990 --> 00:04:43,199

1 673 pounds of cargo including 163

118

00:04:47,670 --> 00:04:46,000

pounds of crew supplies 866 pounds of

119

00:04:51,350 --> 00:04:47,680

scientific research

120

00:04:52,710 --> 00:04:51,360

and 518 pounds of hardware

121

00:04:54,950 --> 00:04:52,720

it's another busy day at the state

122

00:04:56,870 --> 00:04:54,960

station and in fact today marks 12 full

123

00:05:00,310 --> 00:04:56,880

years of busy days at the space station

124

00:05:01,430 --> 00:05:00,320

on october 31st 2000 the expedition 1

125

00:05:03,270 --> 00:05:01,440

crew launched from the baikonur

126

00:05:05,110 --> 00:05:03,280

cosmodrome in kazakhstan on a two-day

127

00:05:06,790 --> 00:05:05,120

trip to the space station and they

128

00:05:10,390 --> 00:05:06,800

became the first crew

129

00:05:13,830 --> 00:05:10,400

to uh live long term on board it 12

130

00:05:16,070 --> 00:05:13,840

years ago today on november 2nd 2000.

131

00:05:18,390 --> 00:05:16,080

commander bill shepherd and flight

132

00:05:20,990 --> 00:05:18,400

engineers yuri gazenko and sergey

133

00:05:22,870 --> 00:05:21,000

kierkelev stayed in space for a total of

134

00:05:25,350 --> 00:05:22,880

136 days

135

00:05:26,790 --> 00:05:25,360

for that expedition 1.

136

00:05:27,990 --> 00:05:26,800

that's what's been going on in space