



1
00:00:04,150 --> 00:00:02,149
the sound suppression water system has

2
00:00:06,630 --> 00:00:04,160
been activated protecting endeavor and

3
00:00:08,710 --> 00:00:06,640
the launch pad from acoustical energy

4
00:00:10,950 --> 00:00:08,720
we're go for main engine start

5
00:00:13,430 --> 00:00:10,960
we have main engine start

6
00:00:15,190 --> 00:00:13,440
four three two

7
00:00:16,470 --> 00:00:15,200
one

8
00:00:19,750 --> 00:00:16,480
booster ignition

9
00:00:22,630 --> 00:00:19,760
and liftoff of endeavor completing kibo

10
00:00:28,550 --> 00:00:22,640
and fulfilling japan's hope for an out

11
00:00:38,069 --> 00:00:34,389
houston

12
00:00:40,150 --> 00:00:38,079
endeavour's role maneuver is being

13
00:00:41,830 --> 00:00:40,160

completed it's now going into a

14

00:00:43,350 --> 00:00:41,840

heads-down position on track for its

15

00:00:44,709 --> 00:00:43,360

flight to the international space

16

00:00:47,270 --> 00:00:44,719

station

17

00:00:48,869 --> 00:00:47,280

flying at 400 miles per hour one mile in

18

00:01:01,110 --> 00:00:48,879

altitude and seven miles downrange

19

00:01:04,310 --> 00:01:02,709

down as the orbiter passes through the

20

00:01:24,630 --> 00:01:04,320

area of maximum pressure on the vehicle

21

00:01:27,830 --> 00:01:25,830

the three engines on board are

22

00:01:30,550 --> 00:01:27,840

throttling back up endeavour flying at

23

00:01:35,510 --> 00:01:30,560

1100 miles per hour 10 miles in altitude

24

00:01:39,030 --> 00:01:37,190

that lift off the fully fueled shuttle

25

00:01:40,710 --> 00:01:39,040

boosters and external tank weighed four

26

00:01:42,469 --> 00:01:40,720

and a half million pounds the total

27

00:01:46,630 --> 00:01:42,479

thrust at launch was six million four

28

00:01:49,590 --> 00:01:48,230

one minute thirty three seconds into the

29

00:01:51,749 --> 00:01:49,600

flight endeavour flying at nineteen

30

00:01:54,310 --> 00:01:51,759

hundred miles per hour 17 miles in

31

00:01:56,069 --> 00:01:54,320

altitude and 16 miles downrange all

32

00:01:58,149 --> 00:01:56,079

systems continue to function well

33

00:02:00,230 --> 00:01:58,159

endeavor has three good main engines

34

00:02:02,149 --> 00:02:00,240

three good power generating fuel cells

35

00:02:05,190 --> 00:02:02,159

and three good auxiliary power units for

36

00:02:06,789 --> 00:02:05,200

the hydraulic system

37

00:02:09,029 --> 00:02:06,799

we'll be standing by for burnout and

38

00:02:11,670 --> 00:02:09,039

separation of the solid rocket boosters

39

00:02:13,270 --> 00:02:11,680

combined the twin boosters provide 5.3

40

00:02:29,589 --> 00:02:13,280

million pounds of thrust to propel the

41

00:02:34,309 --> 00:02:32,070

the booster officer confirms the srbs or

42

00:02:35,910 --> 00:02:34,319

solid rocket boosters have separated

43

00:02:42,550 --> 00:02:35,920

two minutes and 20 seconds into the

44

00:02:47,670 --> 00:02:45,350

endeavour flying at 3 100 miles per hour

45

00:02:50,710 --> 00:02:47,680

37 miles in altitude and 51 miles

46

00:02:50,720 --> 00:02:54,790

endeavor two-engine

47

00:03:00,710 --> 00:02:57,270

who went in

48

00:03:06,710 --> 00:03:00,720

roman on l1 we'd like high-load duct

49

00:03:13,589 --> 00:03:08,710

complete

50

00:03:17,509 --> 00:03:15,270

commander mark polanski adjusting a

51
00:03:19,350 --> 00:03:17,519
heater on the environmental control life

52
00:03:20,949 --> 00:03:19,360
support system endeavour can reach

53
00:03:23,030 --> 00:03:20,959
marone in the event of a single engine

54
00:03:35,190 --> 00:03:23,040
failure however all three main engines

55
00:03:39,270 --> 00:03:36,789
now three minutes 20 seconds into the

56
00:03:46,630 --> 00:03:39,280
flight endeavor is flying at 4 000

57
00:03:52,309 --> 00:03:48,470
booster officer confirms that all three

58
00:03:56,710 --> 00:03:54,309
just endeavor at an altitude of 56

59
00:04:12,630 --> 00:03:56,720
statute miles and 120 miles downrange

60
00:04:18,390 --> 00:04:16,229
endeavor negative return

61
00:04:20,469 --> 00:04:18,400
negative attack

62
00:04:21,990 --> 00:04:20,479
roman the extra duct heaters were

63
00:04:31,350 --> 00:04:22,000

because we saw a little cooling in the

64

00:04:35,030 --> 00:04:33,270

now four minutes and 18 seconds into the

65

00:04:36,710 --> 00:04:35,040

flight endeavour is now flying too high

66

00:04:38,070 --> 00:04:36,720

and too fast to return to the kennedy

67

00:04:39,670 --> 00:04:38,080

space center and the space shuttle

68

00:04:41,590 --> 00:04:39,680

landing facility in the event of an

69

00:04:45,350 --> 00:04:41,600

engine failure all three space shuttle

70

00:04:46,950 --> 00:04:45,360

main engines continue to function well

71

00:04:48,629 --> 00:04:46,960

the environmental systems officer also

72

00:04:50,390 --> 00:04:48,639

confirmed that the flash evaporator

73

00:04:52,310 --> 00:04:50,400

system has been activated to provide

74

00:05:25,670 --> 00:04:52,320

cooling before the payload bay doors are

75

00:05:25,680 --> 00:05:31,749

endeavor press to ato select zaragoza

76
00:05:31,759 --> 00:05:35,909
press the atf

77
00:05:39,830 --> 00:05:37,990
now five minutes and 22 seconds

78
00:05:42,070 --> 00:05:39,840
into the flight endeavor could now reach

79
00:05:44,390 --> 00:05:42,080
a lower than planned orbit but a safe

80
00:05:52,469 --> 00:05:44,400
orbit on two engines should one fail all

81
00:06:00,309 --> 00:05:55,909
endeavor single engine ops three

82
00:06:03,909 --> 00:06:02,150
endeavour could conduct a transatlantic

83
00:06:05,590 --> 00:06:03,919
abort landing on one engine should two

84
00:06:07,830 --> 00:06:05,600
fell at this point all three continuing

85
00:06:10,629 --> 00:06:07,840
to perform well

86
00:06:16,230 --> 00:06:10,639
endeavors flying at 8 300 miles per hour

87
00:06:19,749 --> 00:06:17,909
endeavors engines have been commanded to

88
00:06:22,309 --> 00:06:19,759

swivel to put the orbiter in the proper

89

00:06:23,590 --> 00:06:22,319

heads up position

90

00:06:29,909 --> 00:06:23,600

that for communications with the

91

00:06:35,189 --> 00:06:33,510

endeavor press tamiko

92

00:06:39,430 --> 00:06:35,199

press tomiko

93

00:06:39,440 --> 00:06:44,390

there goes 104.

94

00:06:48,790 --> 00:06:46,710

six minutes 30 seconds into the flight

95

00:06:51,909 --> 00:06:48,800

that call about presto miko nominal

96

00:06:55,510 --> 00:06:51,919

shutdown plan go for the plus x

97

00:06:55,520 --> 00:06:59,990

shut down go plus x go pitch

98

00:07:03,589 --> 00:07:01,830

diver can reach the planned orbit on two

99

00:07:07,189 --> 00:07:03,599

engines overall three continuing to

100

00:07:11,189 --> 00:07:08,870

and the shutdown plan of those engines

101
00:07:16,790 --> 00:07:11,199
is nominal as capcom allen poindexter

102
00:07:16,800 --> 00:07:26,790
endeavor single engine press 104

103
00:07:30,070 --> 00:07:28,469
seven minutes and 12 seconds into the

104
00:07:32,390 --> 00:07:30,080
flight endeavor can reach its planned

105
00:07:34,150 --> 00:07:32,400
orbit on one engine should two fill

106
00:07:36,390 --> 00:07:34,160
and all three are continuing to perform

107
00:07:38,950 --> 00:07:36,400
well

108
00:07:39,749 --> 00:07:38,960
endeavors flying at 12 700 miles per

109
00:07:42,469 --> 00:07:39,759
hour

110
00:07:49,510 --> 00:07:42,479
65 miles in altitude and 613 miles

111
00:07:54,070 --> 00:07:51,830
seven minutes 35 seconds into the flight

112
00:07:55,430 --> 00:07:54,080
and the engines are throttling down to

113
00:07:57,270 --> 00:07:55,440

maintain structural limits on the

114

00:07:59,350 --> 00:07:57,280

orbiter as it passes

115

00:08:45,829 --> 00:07:59,360

or approaches loads near three times

116

00:08:49,670 --> 00:08:47,750

eight minutes 31 seconds into the flight

117

00:09:06,550 --> 00:08:49,680

booster officer confirms the main engine

118

00:09:06,560 --> 00:09:17,190

an external tank separation is confirmed

119

00:09:24,389 --> 00:09:22,550

endeavour in its sts-127 crew in orbit

120

00:09:26,070 --> 00:09:24,399

continuing on the mission to the