

77.511



1  
00:00:16,310 --> 00:00:12,709  
t-minus 16 seconds the sound suppression

2  
00:00:17,990 --> 00:00:16,320  
water system has been activated

3  
00:00:18,870 --> 00:00:18,000  
14 minus 10

4  
00:00:19,750 --> 00:00:18,880  
nine

5  
00:00:20,790 --> 00:00:19,760  
eight

6  
00:00:21,830 --> 00:00:20,800  
seven

7  
00:00:23,910 --> 00:00:21,840  
six

8  
00:00:24,790 --> 00:00:23,920  
five we have to go for we need to start

9  
00:00:26,870 --> 00:00:24,800  
two

10  
00:00:29,349 --> 00:00:26,880  
one

11  
00:00:31,189 --> 00:00:29,359  
booster ignition and liftoff of shuttle

12  
00:00:33,030 --> 00:00:31,199  
endeavour with nasa's final space

13  
00:00:34,630 --> 00:00:33,040

station crew compartment that brings a

14

00:00:46,229 --> 00:00:34,640

bay window view to our celestial

15

00:00:49,590 --> 00:00:47,670

this is mission control houston and

16

00:00:51,670 --> 00:00:49,600

denver's role maneuver is complete he's

17

00:00:53,270 --> 00:00:51,680

now in a heads down position on track

18

00:00:56,549 --> 00:00:53,280

for its flight to the international

19

00:01:01,670 --> 00:00:58,389

28 seconds into the flight endeavor

20

00:01:04,070 --> 00:01:01,680

flying at 1100 miles per hour 1.3 miles

21

00:01:05,509 --> 00:01:04,080

in altitude and seven miles downrange

22

00:01:06,770 --> 00:01:05,519

from the kennedy space center according

23

00:01:11,350 --> 00:01:06,780

to onboard computers

24

00:01:13,429 --> 00:01:11,360

[Music]

25

00:01:15,270 --> 00:01:13,439

endeavor's engines are throttling down

26  
00:01:27,590 --> 00:01:15,280  
at the as the orbiter passes through the

27  
00:01:35,030 --> 00:01:31,429  
endeavor go at throttle up

28  
00:01:36,469 --> 00:01:35,040  
and never copies go ahead throttle up

29  
00:01:38,390 --> 00:01:36,479  
the three main engines on board are

30  
00:01:41,190 --> 00:01:38,400  
throttling back up now one minute 10

31  
00:01:43,749 --> 00:01:41,200  
seconds in the flight

32  
00:01:46,149 --> 00:01:43,759  
endeavour flying at 1800 miles per hour

33  
00:01:50,149 --> 00:01:46,159  
10 miles in altitude 11 and a half miles

34  
00:01:53,670 --> 00:01:51,910  
at liftoff the fully fueled shuttle

35  
00:01:55,510 --> 00:01:53,680  
boosters and external tank weighed four

36  
00:01:57,190 --> 00:01:55,520  
and a half million pounds the total

37  
00:02:02,149 --> 00:01:57,200  
thrust at launch was six million four

38  
00:02:06,149 --> 00:02:04,310

all systems continue to function well

39

00:02:08,150 --> 00:02:06,159

three good main engines

40

00:02:10,070 --> 00:02:08,160

three good power generating fuel cells

41

00:02:14,630 --> 00:02:10,080

and three good auxiliary power units for

42

00:02:21,510 --> 00:02:17,030

the next step will be the burnout and

43

00:02:25,430 --> 00:02:23,910

combined the twin boosters provide 5.3

44

00:02:41,190 --> 00:02:25,440

million pounds of thrust to propel the

45

00:02:46,710 --> 00:02:43,110

endeavor performance is

46

00:02:51,430 --> 00:02:48,630

two minutes 19 seconds into the flight

47

00:02:53,750 --> 00:02:51,440

endeavor flying at 3 700 miles per hour

48

00:02:56,550 --> 00:02:53,760

35 miles in altitude and 49 miles

49

00:03:00,869 --> 00:02:57,910

sound suppression water system has been

50

00:03:03,430 --> 00:03:02,550

where t-minus 10

51  
00:03:04,309 --> 00:03:03,440  
9

52  
00:03:05,350 --> 00:03:04,319  
eight

53  
00:03:06,390 --> 00:03:05,360  
seven

54  
00:03:08,470 --> 00:03:06,400  
six

55  
00:03:09,350 --> 00:03:08,480  
five we have to go for we need to start

56  
00:03:11,430 --> 00:03:09,360  
two

57  
00:03:13,910 --> 00:03:11,440  
one

58  
00:03:16,070 --> 00:03:13,920  
booster ignition and liftoff of shuttle

59  
00:03:17,750 --> 00:03:16,080  
endeavor with nasa's final space station

60  
00:03:30,789 --> 00:03:17,760  
crew compartment that brings a bay

61  
00:03:33,830 --> 00:03:32,149  
this is mission control houston

62  
00:03:35,830 --> 00:03:33,840  
endeavour's role maneuver is complete

63  
00:03:37,270 --> 00:03:35,840

it's now in the heads down position on

64

00:03:41,110 --> 00:03:37,280

track for its flight to the

65

00:03:46,229 --> 00:03:42,949

28 seconds into the flight endeavor

66

00:03:48,630 --> 00:03:46,239

flying at 1100 miles per hour 1.3 miles

67

00:03:50,070 --> 00:03:48,640

in altitude and seven miles downrange

68

00:03:51,470 --> 00:03:50,080

from the kennedy space center according

69

00:03:55,910 --> 00:03:51,480

to onboard computers

70

00:03:58,470 --> 00:03:55,920

[Music]

71

00:04:00,070 --> 00:03:58,480

endeavor's engines are throttling down

72

00:04:12,149 --> 00:04:00,080

as the orbiter passes through the area

73

00:04:12,159 --> 00:04:19,590

endeavor go at throttle up

74

00:04:22,950 --> 00:04:21,030

the three main engines on board are

75

00:04:25,749 --> 00:04:22,960

throttling back up now one minute 10

76

00:04:28,310 --> 00:04:25,759

seconds in the flight

77

00:04:30,710 --> 00:04:28,320

endeavor flying at 1800 miles per hour

78

00:04:34,710 --> 00:04:30,720

10 miles in altitude 11 and a half miles

79

00:04:38,230 --> 00:04:36,469

at liftoff the fully fueled shuttle

80

00:04:40,070 --> 00:04:38,240

boosters and external tank weighed four

81

00:04:41,830 --> 00:04:40,080

and a half million pounds the total

82

00:04:46,710 --> 00:04:41,840

thrust at launch was six million four

83

00:04:50,710 --> 00:04:48,870

all systems continue to function well

84

00:04:52,710 --> 00:04:50,720

three good main engines

85

00:04:54,629 --> 00:04:52,720

three good power generating fuel cells

86

00:04:59,189 --> 00:04:54,639

and three good auxiliary power units for

87

00:05:06,070 --> 00:05:01,590

the next step will be the burnout and

88

00:05:09,990 --> 00:05:08,469

combined the twin boosters provide 5.3

89

00:05:25,749 --> 00:05:10,000

million pounds of thrust to propel the

90

00:05:31,270 --> 00:05:27,670

endeavor performance is

91

00:05:35,990 --> 00:05:33,189

two minutes 19 seconds into the flight

92

00:05:38,310 --> 00:05:36,000

endeavour flying at 3 700 miles per hour

93

00:05:57,350 --> 00:05:38,320

35 miles in altitude and 49 miles

94

00:05:57,360 --> 00:06:28,510

so

95

00:07:15,830 --> 00:06:56,600

[Music]

96

00:07:21,670 --> 00:07:17,990

t-minus 16 seconds the sound suppression

97

00:07:24,230 --> 00:07:23,350

where t-minus ten

98

00:07:25,110 --> 00:07:24,240

nine

99

00:07:26,230 --> 00:07:25,120

eight

100

00:07:27,270 --> 00:07:26,240

seven

101  
00:07:29,270 --> 00:07:27,280  
six

102  
00:07:32,230 --> 00:07:29,280  
five we have two for reading to start

103  
00:07:34,790 --> 00:07:32,240  
two one

104  
00:07:36,550 --> 00:07:34,800  
booster ignition and liftoff of shuttle

105  
00:07:38,390 --> 00:07:36,560  
endeavour with nasa's final space

106  
00:07:39,990 --> 00:07:38,400  
station crew compartment that brings a

107  
00:07:51,589 --> 00:07:40,000  
bay window view to our celestial

108  
00:07:54,950 --> 00:07:53,029  
this is mission control houston and

109  
00:07:57,029 --> 00:07:54,960  
denver's role maneuver is complete it's

110  
00:07:58,629 --> 00:07:57,039  
now in a heads down position on track

111  
00:08:01,909 --> 00:07:58,639  
for its flight to the international

112  
00:08:07,029 --> 00:08:03,749  
28 seconds into the flight endeavor

113  
00:08:09,589 --> 00:08:07,039

flying at 1100 miles per hour 1.3 miles

114

00:08:11,029 --> 00:08:09,599

in altitude and 7 miles downrange from

115

00:08:12,300 --> 00:08:11,039

the Kennedy Space Center according to

116

00:08:16,790 --> 00:08:12,310

onboard computers

117

00:08:18,869 --> 00:08:16,800

[Music]

118

00:08:20,710 --> 00:08:18,879

Endeavour's engines are throttling down at

119

00:08:32,949 --> 00:08:20,720

the orbiter as it passes through the

120

00:08:40,469 --> 00:08:36,790

Endeavour goes to throttle up

121

00:08:43,829 --> 00:08:41,829

the three main engines on board are

122

00:08:46,630 --> 00:08:43,839

throttling back up now one minute 10

123

00:08:49,190 --> 00:08:46,640

seconds in the flight

124

00:08:51,509 --> 00:08:49,200

Endeavour flying at 1800 miles per hour

125

00:08:55,509 --> 00:08:51,519

10 miles in altitude 11.5 miles

126  
00:08:59,030 --> 00:08:57,269  
at liftoff the fully fueled shuttle

127  
00:09:00,870 --> 00:08:59,040  
boosters and external tank weighed four

128  
00:09:02,630 --> 00:09:00,880  
and a half million pounds the total

129  
00:09:07,590 --> 00:09:02,640  
thrust at launch was six million four

130  
00:09:11,509 --> 00:09:09,670  
all systems continue to function well

131  
00:09:13,590 --> 00:09:11,519  
three good main engines

132  
00:09:15,430 --> 00:09:13,600  
three good power generating fuel cells

133  
00:09:19,990 --> 00:09:15,440  
and three good auxiliary power units for

134  
00:09:26,870 --> 00:09:22,470  
the next step will be the burnout and

135  
00:09:30,790 --> 00:09:29,269  
combined the twin boosters provide 5.3

136  
00:09:46,630 --> 00:09:30,800  
million pounds of thrust to propel the

137  
00:09:52,070 --> 00:09:48,470  
endeavor performance is

138  
00:09:56,870 --> 00:09:53,990

two minutes 19 seconds into the flight

139

00:09:59,110 --> 00:09:56,880

endeavour flying at 3 700 miles per hour

140

00:10:07,670 --> 00:09:59,120

35 miles in altitude and 49 miles

141

00:10:12,069 --> 00:10:09,110

sound suppression water system has been

142

00:10:14,550 --> 00:10:13,670

where t-minus 10

143

00:10:15,430 --> 00:10:14,560

9

144

00:10:16,550 --> 00:10:15,440

8

145

00:10:17,590 --> 00:10:16,560

7

146

00:10:19,670 --> 00:10:17,600

6

147

00:10:20,550 --> 00:10:19,680

five we have to go for we need to start

148

00:10:22,630 --> 00:10:20,560

two

149

00:10:25,110 --> 00:10:22,640

one

150

00:10:26,949 --> 00:10:25,120

booster ignition and liftoff of shuttle

151  
00:10:28,710 --> 00:10:26,959  
endeavour with nasa's final space

152  
00:10:30,389 --> 00:10:28,720  
station crew compartment that brings a

153  
00:10:37,750 --> 00:10:30,399  
bay window view to our celestial

154  
00:10:37,760 --> 00:10:41,910  
program

155  
00:10:45,269 --> 00:10:43,269  
this is mission control houston

156  
00:10:47,350 --> 00:10:45,279  
endeavors role maneuver is complete it's

157  
00:10:48,949 --> 00:10:47,360  
now in a heads down position on track

158  
00:10:52,310 --> 00:10:48,959  
for its flight to the international

159  
00:10:57,430 --> 00:10:54,069  
28 seconds into the flight endeavour

160  
00:10:59,910 --> 00:10:57,440  
flying at 1100 miles per hour 1.3 miles

161  
00:11:01,350 --> 00:10:59,920  
in altitude and 7 miles downrange from

162  
00:11:02,640 --> 00:11:01,360  
the kennedy space center according to

163  
00:11:07,110 --> 00:11:02,650

onboard computers

164

00:11:09,269 --> 00:11:07,120

[Music]

165

00:11:11,030 --> 00:11:09,279

endeavors engines are throttling down at

166

00:11:23,350 --> 00:11:11,040

the as the orbiter passes through the

167

00:11:30,790 --> 00:11:27,190

endeavor go at throttle up

168

00:11:32,150 --> 00:11:30,800

and never copies go ahead throttle up

169

00:11:34,150 --> 00:11:32,160

the three main engines on board are

170

00:11:36,949 --> 00:11:34,160

throttling back up now one minute 10

171

00:11:39,509 --> 00:11:36,959

seconds in the flight

172

00:11:41,350 --> 00:11:39,519

endeavor flying at 1800 miles per hour

173

00:11:45,829 --> 00:11:41,360

10 miles in altitude

174

00:11:49,350 --> 00:11:47,670

at liftoff the fully fueled shuttle

175

00:11:51,269 --> 00:11:49,360

boosters and external tank weighed four

176

00:11:52,949 --> 00:11:51,279

and a half million pounds the total

177

00:11:57,910 --> 00:11:52,959

thrust at launch was six million four

178

00:12:01,829 --> 00:11:59,990

all systems continue to function well

179

00:12:03,910 --> 00:12:01,839

three good main engines

180

00:12:05,750 --> 00:12:03,920

three good power generating fuel cells

181

00:12:10,389 --> 00:12:05,760

and three good auxiliary power units for

182

00:12:17,190 --> 00:12:12,790

the next step will be the burnout and

183

00:12:21,190 --> 00:12:19,590

combined the twin boosters provide 5.3

184

00:12:36,949 --> 00:12:21,200

million pounds of thrust to propel the

185

00:12:42,389 --> 00:12:38,790

endeavor performance is

186

00:12:47,190 --> 00:12:44,389

two minutes 19 seconds into the flight

187

00:12:49,430 --> 00:12:47,200

endeavour flying at 3 700 miles per hour

188

00:12:54,150 --> 00:12:49,440

35 miles in altitude and 49 miles

189

00:12:57,590 --> 00:12:55,829

the propulsion officer confirms that the

190

00:12:59,509 --> 00:12:57,600

orbital maneuvering system engines are

191

00:13:08,150 --> 00:12:59,519

firing providing endeavor with its extra

192

00:13:08,160 --> 00:13:12,629

endeavor two engines zaragoza