



1
00:00:02,629 --> 00:00:01,589
five

2
00:00:03,669 --> 00:00:02,639
four

3
00:00:04,789 --> 00:00:03,679
three

4
00:00:07,990 --> 00:00:04,799
two

5
00:00:13,509 --> 00:00:09,509
and liftoff

6
00:00:15,350 --> 00:00:13,519
the 100th liftoff from launch pad 39a as

7
00:00:21,109 --> 00:00:15,360
falcon and dragon take flight to the

8
00:00:21,119 --> 00:00:57,510
first nominal

9
00:00:57,520 --> 00:01:00,549
according to plan

10
00:01:04,149 --> 00:01:02,549
falcon is on target for

11
00:01:05,670 --> 00:01:04,159
its rendezvous at the international

12
00:01:13,030 --> 00:01:05,680
space station

13
00:01:29,510 --> 00:01:16,550

falcon 9 is going transonic at this time

14

00:01:32,870 --> 00:01:31,109

about one minute away from the first

15

00:01:35,590 --> 00:01:32,880

stage engine cut off in the beginning of

16

00:01:40,870 --> 00:01:35,600

the boost back burn

17

00:01:45,270 --> 00:01:43,429

nasa television will be

18

00:01:47,749 --> 00:01:45,280

showing both the

19

00:01:50,069 --> 00:01:47,759

second stage carrying dragon to orbit

20

00:01:52,630 --> 00:01:50,079

and portions of the return of the falcon

21

00:01:54,230 --> 00:01:52,640

9 first stage engine to landing zone one

22

00:02:06,230 --> 00:01:54,240

at nearby cape canaveral air force

23

00:02:06,240 --> 00:02:10,229

less than 30 seconds away from

24

00:02:10,239 --> 00:02:35,110

miko main engine cutoff

25

00:02:39,030 --> 00:02:37,190

separation confirmed

26
00:02:41,350 --> 00:02:39,040
you could see the stage separation first

27
00:02:42,309 --> 00:02:41,360
stage departing the second stage engine

28
00:02:44,150 --> 00:02:42,319
igniting

29
00:02:46,630 --> 00:02:44,160
confirmed stage one boost burn has

30
00:02:47,830 --> 00:02:46,640
started stage two on the left stage one

31
00:02:49,589 --> 00:02:47,840
on the right

32
00:02:51,030 --> 00:02:49,599
falcon 9 first stage heading back toward

33
00:02:52,710 --> 00:02:51,040
earth

34
00:03:01,910 --> 00:02:52,720
second stage continuing on its way to

35
00:03:04,390 --> 00:03:02,710
the

36
00:03:06,390 --> 00:03:04,400
nose cone

37
00:03:08,070 --> 00:03:06,400
protecting dragon

38
00:03:13,509 --> 00:03:08,080

will be jettisoned in

39

00:03:13,519 --> 00:03:33,509

stage two propulsion nominal

40

00:03:38,149 --> 00:03:35,990

stage one boost back burn shut down

41

00:03:40,550 --> 00:03:38,159

and as planned the first stage boost

42

00:03:44,949 --> 00:03:40,560

back burn has shut down

43

00:03:48,710 --> 00:03:46,630

and we're looking at the first stage

44

00:03:51,670 --> 00:03:48,720

making its return on the left of the

45

00:03:54,309 --> 00:03:51,680

nasa television screen

46

00:03:57,509 --> 00:03:54,319

falcon 9 second stage engine continues

47

00:03:57,519 --> 00:04:06,470

acquisition of signal bermuda

48

00:04:11,190 --> 00:04:08,949

second stage will continue to burn

49

00:04:12,949 --> 00:04:11,200

for another five minutes

50

00:04:32,710 --> 00:04:12,959

carrying the dragon spacecraft into its

51
00:04:36,870 --> 00:04:34,629
in about two minutes the first stage

52
00:04:41,270 --> 00:04:36,880
entry burn will begin

53
00:04:45,830 --> 00:04:44,070
bringing the falcon 9 first stage

54
00:04:47,990 --> 00:04:45,840
back toward cape canaveral air force

55
00:04:49,510 --> 00:04:48,000
station

56
00:04:51,590 --> 00:04:49,520
second stage engine performance

57
00:05:14,390 --> 00:04:51,600
continues to be good

58
00:05:21,510 --> 00:05:16,150
second stage continues to follow the

59
00:05:21,520 --> 00:05:25,270
position in new hampshire

60
00:05:29,830 --> 00:05:27,909
spacex new hampshire tracking site now

61
00:05:32,390 --> 00:05:29,840
tracking the

62
00:05:40,629 --> 00:05:32,400
travels of the second stage

63
00:05:44,310 --> 00:05:42,469

about 45 seconds away from the first

64

00:05:45,990 --> 00:05:44,320

stage entry burn

65

00:05:49,749 --> 00:05:46,000

second stage continues to perform

66

00:05:49,759 --> 00:06:10,550

five minutes 45 seconds into flight

67

00:06:10,560 --> 00:06:20,550

stage one entry burn starting

68

00:06:24,390 --> 00:06:22,629

and you can see the stage one entry burn

69

00:06:26,309 --> 00:06:24,400

underway

70

00:06:29,029 --> 00:06:26,319

everything continues to go well stage

71

00:06:30,150 --> 00:06:29,039

two carrying the dragon spacecraft

72

00:06:35,510 --> 00:06:30,160

shut down

73

00:06:44,710 --> 00:06:37,350

six minutes thirty seconds into the

74

00:06:44,720 --> 00:07:04,070

stage one afts says saved

75

00:07:04,080 --> 00:07:11,350

stage one is transonic

76

00:07:16,150 --> 00:07:13,110

stage one is

77

00:07:18,629 --> 00:07:16,160

flying back towards starting landing

78

00:07:21,110 --> 00:07:18,639

burn is starting

79

00:07:23,110 --> 00:07:21,120

for stage one

80

00:07:24,550 --> 00:07:23,120

seven minutes 15 seconds into flight

81

00:07:29,029 --> 00:07:24,560

everything continues well with the

82

00:07:32,950 --> 00:07:30,870

for those in the area there will be a

83

00:07:34,870 --> 00:07:32,960

loud sonic boom that will occur right

84

00:07:37,749 --> 00:07:34,880

about the time of landing which is

85

00:07:43,029 --> 00:07:39,670

the length of time that the

86

00:07:47,350 --> 00:07:43,039

sonic boom took to reach earth

87

00:07:51,909 --> 00:07:49,589

and the first stage is back

88

00:07:54,230 --> 00:07:51,919

just miles away from its launch point

89

00:07:58,230 --> 00:07:54,240

stage one engines have shut down

90

00:07:59,909 --> 00:07:58,240

the falcon has landed landing operators

91

00:08:05,029 --> 00:07:59,919

proceed with initial safing per

92

00:08:06,629 --> 00:08:05,039

procedure 11.100 section 3 on lg1net

93

00:08:09,510 --> 00:08:06,639

everything going according to plan eight

94

00:08:11,990 --> 00:08:09,520

minutes into flight

95

00:08:15,990 --> 00:08:12,000

about a minute away from second stage

96

00:08:16,000 --> 00:08:37,829

stage two propulsion remains nominal

97

00:08:42,630 --> 00:08:40,790

eight minutes 30 seconds into the flight

98

00:08:47,829 --> 00:08:42,640

and about 30 seconds away from the

99

00:08:51,110 --> 00:08:49,269

that will be followed about a minute

100

00:08:54,470 --> 00:08:51,120

later by the dragon spacecraft

101
00:08:54,480 --> 00:09:05,190
osm boosters landed

102
00:09:05,200 --> 00:09:10,150
stage 2 afts has saved

103
00:09:10,160 --> 00:09:29,030
standing by for engine cutoff

104
00:09:34,790 --> 00:09:30,070
one

105
00:09:34,800 --> 00:09:39,190
engineers report a good initial orbit

106
00:09:49,509 --> 00:09:41,269
standing by for dragon separation in

107
00:09:53,990 --> 00:09:52,230
stage two making its way

108
00:09:56,710 --> 00:09:54,000
on a trajectory toward the international

109
00:09:59,509 --> 00:09:56,720
space station at 51.6 degrees

110
00:10:04,230 --> 00:09:59,519
inclination to the equator stage one is

111
00:10:04,240 --> 00:10:16,949
acquisition of signal in newfoundland

112
00:10:16,959 --> 00:10:27,509
standing by for spacecraft separation

113
00:10:32,949 --> 00:10:30,550

dragon deployment confirmed

114

00:10:34,949 --> 00:10:32,959

and a good spacecraft separation

115

00:10:37,829 --> 00:10:34,959

dragon makes its way toward the space

116

00:10:45,750 --> 00:10:40,230

next major milestone is the deploy of

117

00:10:45,760 --> 00:11:56,150

10 minutes 40 seconds after launch

118

00:12:00,310 --> 00:11:58,949

11 minutes 51 seconds after the launch

119

00:12:03,110 --> 00:12:00,320

of falcon

120

00:12:04,629 --> 00:12:03,120

the dragon spacecraft is flying free

121

00:12:08,790 --> 00:12:04,639

the next major milestone is its

122

00:12:12,470 --> 00:12:11,030

needed to continue to power the vessel

123

00:12:15,030 --> 00:12:12,480

on its way toward the international