1
00:00:04,080 --> 00:00:13,910
t minus 30 seconds

2
00:00:18,790 --> 00:00:15,350
all propellant tanks at pressure minus

3
00:00:18,800 --> 00:00:25,109
fire x is on t minus 15 seconds

4
00:00:28,950 --> 00:00:27,990
t minus 10 9 8

5
00:00:29,990 --> 00:00:28,960
7

6
00:00:31,029 --> 00:00:30,000
six

7
00:00:31,990 --> 00:00:31,039
five

8
00:00:33,030 --> 00:00:32,000
four

9
00:00:33,990 --> 00:00:33,040
three

10
00:00:34,950 --> 00:00:34,000
two

11
00:00:37,510 --> 00:00:34,960
one

12
00:00:44,709 --> 00:00:42,150
and launch of the spacex falcon 9 rocket

13
00:00:59,910 --> 00:00:44,719

as nasa turns to the private sector to

14
00:00:59,920 --> 00:01:04,229
starting gravity turn

15
00:01:04,239 --> 00:01:15,109
first stage

16
00:01:27,270 --> 00:01:17,270
we have a solid telemetry link

17
00:01:33,350 --> 00:01:28,789
first stage propellant utilization is

18
00:01:38,710 --> 00:01:35,910
vehicles on a nominal trajectory

19
00:01:40,710 --> 00:01:38,720
altitude 5.3 kilometers velocity 225

20
00:01:47,270 --> 00:01:40,720
meters per second and downrange distance

21
00:01:47,280 --> 00:01:59,429
vehicle is supersonic

22
00:02:06,789 --> 00:02:01,190
vehicle has reached maximum aerodynamic

23
00:02:15,350 --> 00:02:08,229
proportions performing nominally

24
00:02:34,470 --> 00:02:17,670
we have a solid rf link power systems

25
00:02:38,949 --> 00:02:36,550
vehicles on a nominal trajectory 30

26
00:02:40,470 --> 00:02:38,959
kilometers altitude one kilometer

27
00:02:45,270 --> 00:02:40,480
per second velocity and downrange

28
00:02:45,280 --> 00:03:03,110
dragon power systems are nominal

29
00:03:07,509 --> 00:03:05,110
vehicles on a nominal trajectory 53

30
00:03:09,509 --> 00:03:07,519
kilometers altitude 1.7 kilometers per

31
00:03:16,630 --> 00:03:09,519
second velocity and downrange distance

32
00:03:16,640 --> 00:03:26,229
approaching mikko one

33
00:03:26,239 --> 00:03:31,350
miko one planned shutdown on engines 109

34
00:03:31,360 --> 00:03:37,509
for stage impact point past midmico

35
00:03:43,750 --> 00:03:39,270
let's go to

36
00:03:43,760 --> 00:03:50,630
is that confirmed

37
00:03:50,640 --> 00:04:31,030
and recognition confirmed

38
00:04:35,909 --> 00:04:32,310

the dragon

39
00:04:35,919 --> 00:04:53,749
stage two propulsion systems nominal

40
00:04:58,230 --> 00:04:55,550
vehicle remains on a nominal trajectory

41
00:05:00,230 --> 00:04:58,240
176 kilometers altitude velocity of

42
00:05:03,029 --> 00:05:00,240
three kilometers per second downrange

43
00:05:04,550 --> 00:05:03,039
distance 320 kilometers

44
00:05:07,510 --> 00:05:04,560
on power systems are nominal and we

45
00:05:10,070 --> 00:05:07,520
still have a solar telemetry link

46
00:05:53,270 --> 00:05:10,080
osmosis lc please move to a stage two

47
00:05:58,390 --> 00:05:55,350
vehicle remains on a nominal trajectory

48
00:06:01,110 --> 00:05:58,400
220 kilometers altitude 3.4 kilometers

49
00:06:19,270 --> 00:06:01,120
per second and downrange distance of 470

50
00:06:40,469 --> 00:06:20,870
second stage propulsion performing as

51
00:06:43,749 --> 00:06:42,150
second stage power system is looking

52
00:06:53,670 --> 00:06:43,759
good and we have a solid telemetry

53
00:06:58,550 --> 00:06:55,670
vehicle remains on a nominal trajectory

54
00:07:00,629 --> 00:06:58,560
269 kilometers in altitude velocity of 4

55
00:07:46,390 --> 00:07:00,639
kilometers per second and a down range

56
00:07:46,400 --> 00:08:04,550
and fact and stage 2 performance is good

57
00:08:09,430 --> 00:08:07,029
vehicle remains on a nominal trajectory

58
00:08:11,189 --> 00:08:09,440
300 kilometers in altitude velocity of 5

59
00:08:13,510 --> 00:08:11,199
kilometers per second and downrange

60
00:08:16,070 --> 00:08:13,520
distance of one thousand kilometers imu

61
00:08:21,270 --> 00:08:16,080
sensor remains healthy and gps lock is

62
00:09:14,389 --> 00:08:22,790
and we are picking up data from new

63
00:09:14,399 --> 00:09:21,670

vehicles in terminal guidance

64
00:09:21,680 --> 00:09:41,910
vehicles pass through the european gate

65
00:09:41,920 --> 00:10:01,430
fts is saved

66
00:10:07,509 --> 00:10:04,550
and that shut down confirmed

67
00:10:16,230 --> 00:10:07,519
falcon 9 and dragon are in orbit

68
00:10:27,030 --> 00:10:17,750
apogee

69
00:10:27,040 --> 00:10:30,670
and a

70
00:10:36,310 --> 00:10:33,430
5.6 degrees

71
00:10:46,150 --> 00:10:38,069
solar ray deployment should start in

72
00:10:46,160 --> 00:11:26,389
of payload settling deploy

73
00:11:26,399 --> 00:12:15,590
thirty seconds from solar ray deployment

74
00:12:15,600 --> 00:12:24,389
dragon solar deployment has started

75
00:12:24,399 --> 00:13:18,150
sorry have deployed

76
00:13:18,160 --> 00:13:31,430
uh

77
00:13:37,030 --> 00:13:34,870
ldmg on countdown

78
00:13:38,470 --> 00:13:37,040
ld is on a phone call right now md yeah

79
00:13:41,189 --> 00:13:38,480
copy that i'll see we're going to be

80
00:13:43,910 --> 00:13:41,199
switch on countdown that thanks for uh

81
00:13:43,920 --> 00:13:58,230
good luck

82
00:14:46,550 --> 00:13:59,670
dragon has started its attitude and

83
00:14:51,910 --> 00:14:48,870
this is falcon 9 launch control 14

84
00:14:55,430 --> 00:14:51,920
minutes 14 seconds into the mission

85
00:14:59,350 --> 00:14:55,440
so arrays have deployed the

86
00:15:00,189 --> 00:14:59,360
initial planned orbit in miles is 193.7

87
00:15:04,230 --> 00:15:00,199
by

88
00:15:07,189 --> 00:15:04,240

212.5 at an inclination of 51.6

89
00:15:10,790 --> 00:15:07,199
and the apogee or the high point of that

90
00:15:12,629 --> 00:15:10,800
orbit is just below the iss by about 37

91
00:15:14,629 --> 00:15:12,639
miles we're going to go out now to the

92
00:15:17,350 --> 00:15:14,639
international space station control room

93
00:15:21,189 --> 00:15:17,360
in houston for an update from

94
00:15:25,430 --> 00:15:22,870
thanks george and welcome back to

95
00:15:26,949 --> 00:15:25,440
mission control houston where all eyes

96
00:15:28,629 --> 00:15:26,959
of the international space station

97
00:15:30,389 --> 00:15:28,639
flight control team have been focused on

98
00:15:32,150 --> 00:15:30,399
the views of launch

99
00:15:33,509 --> 00:15:32,160
of the launch of what will hopefully in

100
00:15:35,430 --> 00:15:33,519
just a couple days become the first