



1  
00:00:01,630 --> 00:00:02,630  
10

2  
00:00:02,630 --> 00:00:03,630  
9

3  
00:00:03,630 --> 00:00:04,710  
T-minus 8 seconds

4  
00:00:04,710 --> 00:00:06,040  
7....

5  
00:00:06,040 --> 00:00:07,060  
6.....

6  
00:00:07,220 --> 00:00:08,020  
5.....

7  
00:00:08,120 --> 00:00:09,200  
4.....

8  
00:00:09,200 --> 00:00:09,920  
3.....

9  
00:00:10,060 --> 00:00:11,120  
2.....

10  
00:00:11,120 --> 00:00:12,460  
1

11  
00:00:14,060 --> 00:00:16,280  
We have ignition, and liftoff.

12  
00:00:16,280 --> 00:00:22,409  
The Falcon 9 rocket powers the Dragon spacecraft  
toward the International Space Station, laden

13

00:00:22,409 --> 00:00:25,840  
with new research for the multinational crew.

14  
00:00:31,080 --> 00:00:34,720  
Additional prop is nominal.

15  
00:00:34,720 --> 00:00:36,480  
MECO is mission downrange.

16  
00:00:42,840 --> 00:00:48,800  
At one minute, five seconds after liftoff,  
Falcon 9 reaches transonic speed via go pass

17  
00:00:48,820 --> 00:00:52,280  
through the area of maximum dynamic pressure,  
or MaxQ.

18  
00:00:52,280 --> 00:00:58,690  
At one minute, 18 seconds after liftoff, this  
is the point when mechanical stress on the

19  
00:00:58,690 --> 00:01:03,090  
rocket reaches its peak because of the rocket's  
velocity and resistance created by the Earth's

20  
00:01:03,090 --> 00:01:04,600  
atmosphere.

21  
00:01:13,160 --> 00:01:14,160  
One minute into flight.

22  
00:01:23,600 --> 00:01:27,080  
The Falcon 9 is supersonic.

23  
00:01:27,080 --> 00:01:29,680  
Confirmation that the Falcon 9 is supersonic.

24  
00:01:32,160 --> 00:01:38,800  
You can see the contrail as the rocket passes

through maximum dynamic pressure.

25  
00:01:43,720 --> 00:01:47,040  
MECO has reached maximum dynamic pressure.

26  
00:01:53,440 --> 00:01:58,840  
Just over one minute left in the flight of  
the first stage of the Falcon 9.

27  
00:01:58,840 --> 00:02:03,439  
At around two minutes, 35 seconds into the  
flight, all nine engines will sequentially

28  
00:02:03,440 --> 00:02:07,640  
shut down, and you'll hear the call MECO,  
which is main engine cutoff.

29  
00:02:13,360 --> 00:02:15,320  
ENVAC engine chill.

30  
00:02:19,720 --> 00:02:24,920  
The ENVAC is the second stage Merlin vacuum  
engine.

31  
00:02:24,960 --> 00:02:30,760  
It's being chilled for its operation, which  
will get underway in a little bit more than

32  
00:02:30,760 --> 00:02:32,320  
30 seconds.

33  
00:02:53,800 --> 00:02:56,200  
Standing by for main engine cutoff.

34  
00:03:01,240 --> 00:03:03,200  
MECO

35  
00:03:03,210 --> 00:03:04,410  
Stage separation confirmed.

36

00:03:04,410 --> 00:03:07,090

MECO and stage separation confirmed.

37

00:03:07,090 --> 00:03:12,340

The first stage of the Falcon 9 rocket having done its job, falls away from the second stage.

38

00:03:14,730 --> 00:03:13,530

ENVAC ignition.