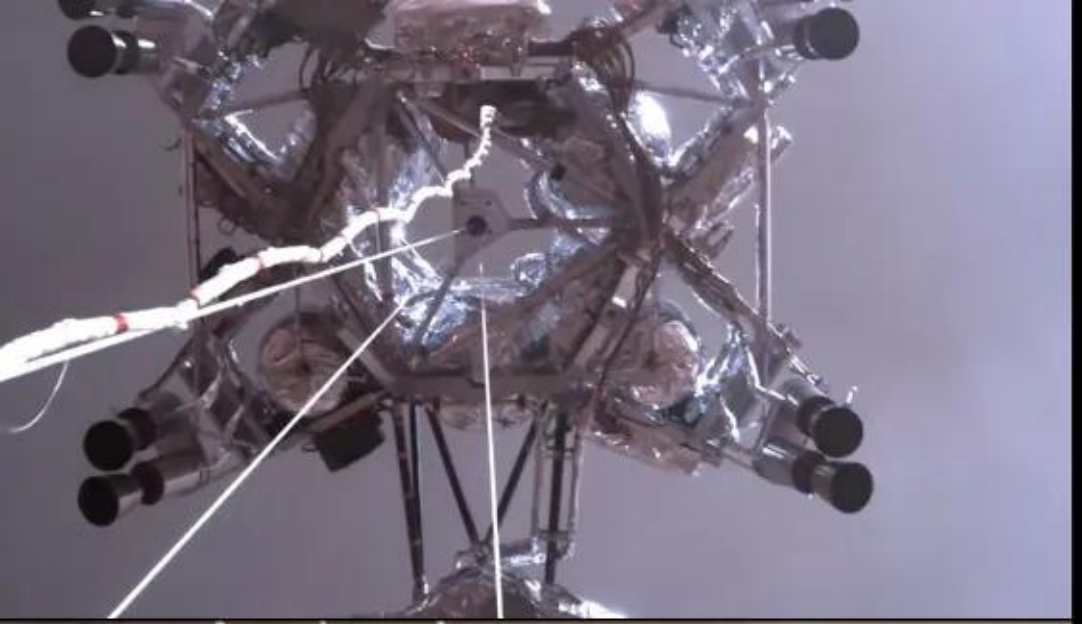

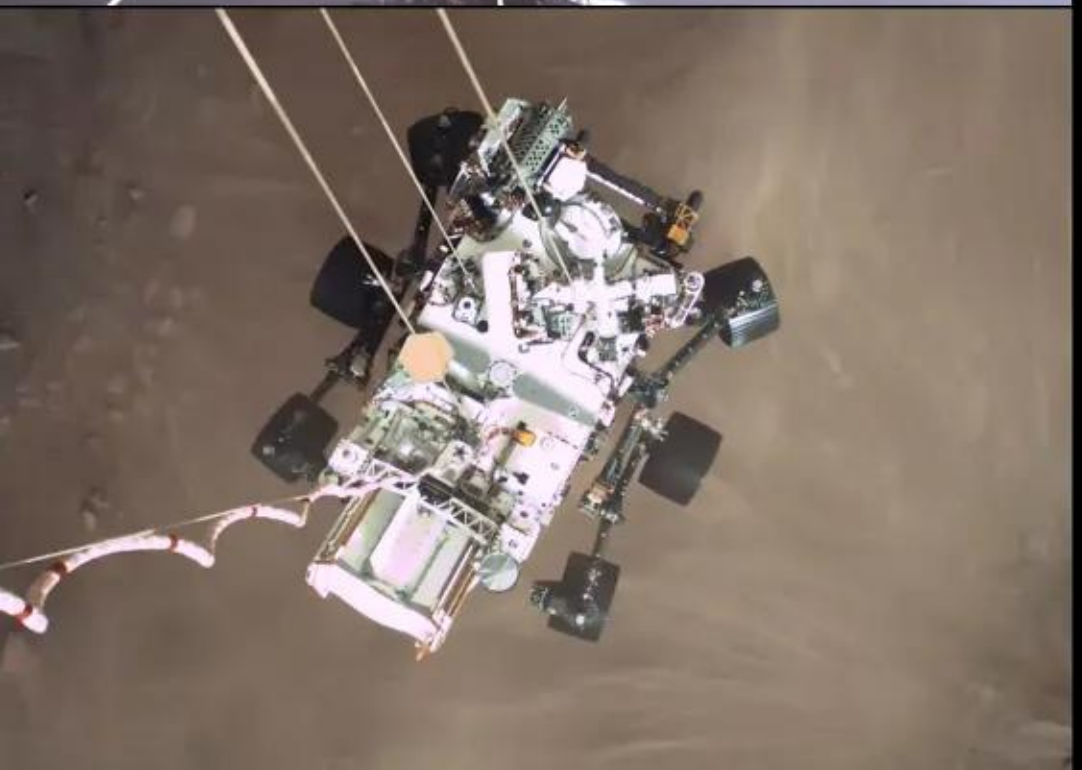

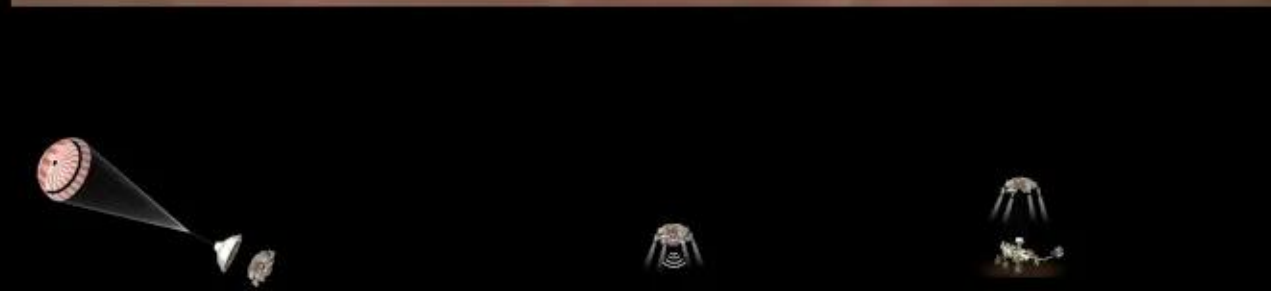

1
00:00:00,400 --> 00:00:03,280
We are starting the straighten\h
up and fly right maneuver,\h\h

2
00:00:03,280 --> 00:00:07,360
where the spacecraft will jettison the\h
entry balance masses in preparation for\h\h

3
00:00:07,360 --> 00:00:11,280
parachute deploy and to roll over to give\h
the radar a better look at the ground.

4
00:00:14,160 --> 00:00:20,800
[inaudible] indicates chute deploy. The navigation\h
has confirmed that the parachute has deployed and\h\h

5
00:00:20,800 --> 00:00:26,560
we are seeing significant deceleration in\h
the velocity. Our current velocity is 450\h\h

6
00:00:26,560 --> 00:00:30,560
meters per second at an altitude of about\h
12 kilometers from the surface of Mars.

7
00:00:33,120 --> 00:00:38,480
Heat shield sep. Perseverance has now slowed\h
to subsonic speeds and the heat shield has been\h\h

8
00:00:38,480 --> 00:00:44,400
separated. This allows both the radar and the\h
cameras to get their first look at the surface.\h\h

9
00:00:44,400 --> 00:00:48,880
Current velocity is 145 meters per\h
second and an altitude of about\h\h

10
00:00:48,880 --> 00:00:57,840
10 kilometers - nine and a half\h
kilometers above the surface.

11
00:01:07,680 --> 00:01:14,480
Nav filter converge lastly solution 3.3 meters\h
per second, altitude 7.4 kilometers. Nav has\h\h

12
00:01:14,480 --> 00:01:20,800
radar lock on the ground. Current velocity is\h
about 100 meters per second, 6.6 kilometers off\h\h

13
00:01:20,800 --> 00:01:31,520
the surface of Mars. Perseverance is continuing to\h
descend on the parachute. We are coming up on the\h\h

14
00:01:31,520 --> 00:01:36,400
initialization of terrain relative navigation\h
and subsequently the priming of the landing\h\h

15
00:01:36,400 --> 00:01:42,800
engines. Our current velocity is about 90 meters\h
per second at an altitude of 4.2 kilometers.

16
00:01:47,280 --> 00:01:52,640
LVS valid. We have confirmation that the lander\h
vision system has produced a valid solution\h\h

17
00:01:52,640 --> 00:01:55,280
and part of terrain relative navigation. Priming\h\h

18
00:01:56,000 --> 00:02:00,240
pba is nominal. We have\h
priming of the landing engines.

19
00:02:06,000 --> 00:02:12,160
Back shell sep. Current velocity is 83 meters\h
per second at about 2.6 kilometers from the\h\h

20
00:02:12,160 --> 00:02:15,600
surface of Mars. We have confirmation\h
that the back shell has separated.\h\h

21

00:02:16,400 --> 00:02:21,360
We are currently performing the divert maneuver.\h
Current velocity is about 75 meters per second\h\h

22
00:02:21,360 --> 00:02:27,120
at an altitude of about a kilometer off\h
the surface of Mars. TRN safety bravo.\h\h

23
00:02:28,960 --> 00:02:34,400
We have completed our terrain relative\h
navigation. Current speed is about 30\h\h

24
00:02:34,400 --> 00:02:38,800
meters per second, altitude of about\h
300 meters off the surface of Mars.

25
00:02:41,440 --> 00:02:45,200
We have started our constant\h
velocity accordion which means we are\h\h

26
00:02:45,200 --> 00:02:49,840
conducting the skycrane - about\h
to conduct the skycrane maneuver.

27
00:02:52,320 --> 00:02:53,600
Skycrane maneuver has started.

28
00:02:56,000 --> 00:03:05,920
About 20 meters off the surface,\h
we're getting signals from MRO.\h\h