1
00:00:00,950 --> 00:00:02,640
George Diller/NASA Launch Commentator: From
Vandenberg Air Force Base in

2
00:00:02,640 --> 00:00:08,860
California, this is Delta Launch Control at
T-minus one hour, 49 minutes, 16 seconds

3
00:00:08,860 --> 00:00:10,320
and counting.

4
00:00:10,320 --> 00:00:14,950
We're slightly more than two hours away from
the launch of the Soil Moisture Active

5
00:00:14,950 --> 00:00:18,770
Passive observatory, also called SMAP.

6
00:00:18,770 --> 00:00:22,710
Liftoff from Space Launch Complex-2 aboard
a United Launch Alliance Delta II

7
00:00:22,710 --> 00:00:25,330
rocket is scheduled for 6:20 a.m.

8
00:00:25,330 --> 00:00:28,220
Pacific time at the opening of a three-minute

9
00:00:28,220 --> 00:00:30,420
launch window.

10
00:00:30,420 --> 00:00:35,140
SMAP is the first U.S Earth-observing satellite
designed to collect global

11
00:00:35,140 --> 00:00:40,050
observations of surface soil moisture and
its freeze/frost (inaudible) state.

12
00:00:40,050 --> 00:00:44,120
High-resolution, space-based measurements
of soil moisture, and whether the soil is

13
00:00:44,120 --> 00:00:49,030
frozen or thawed, will give scientists a new
capability to better predict natural

14
00:00:49,030 --> 00:00:53,850
hazards of extreme weather, climate change,
floods or droughts, and will help

15
00:00:53,850 --> 00:00:57,960
reduce uncertainties in our understanding
of Earth's water, energy and carbon

16
00:00:57,960 --> 00:00:59,329
cycles.

17
00:00:59,329 --> 00:01:03,700
The mission will provide the most accurate
and highest resolution maps of soil

18
00:01:03,700 --> 00:01:05,600
moisture ever obtained.

19
00:01:05,600 --> 00:01:08,249
Mapping the globe every two to three days
from space for at

20
00:01:08,249 --> 00:01:09,710
least three years.

21
00:01:09,710 --> 00:01:17,109
All of our countdown activities are on schedule
at this time.

22
00:01:17,109 --> 00:01:23,439
And we have just a 10 percent chance of not

meeting our launch weather criteria.

23
00:01:23,439 --> 00:01:29,770
Last night at about 9:15, the mobile service tower was retracted from around the

24
00:01:29,770 --> 00:01:46,170
Delta II rocket.

25
00:01:46,170 --> 00:01:56,299
This is at Space Launch Complex-2 on north Vandenberg Air Force Base.

26
00:01:56,299 --> 00:02:11,340
The mobile service tower completely encloses the Delta II for launch preparations.

27
00:02:11,340 --> 00:02:22,579
Provides weather protection and has all of the access to the vehicle that the launch

28
00:02:22,579 --> 00:02:26,290
engineers and technicians need.

29
00:02:26,290 --> 00:02:32,370
The launch vehicle is 128 feet tall, as we see it there, it■s eight feet in diameter

30
00:02:32,370 --> 00:02:33,790
with a

31
00:02:33,790 --> 00:02:38,349
10-foot fairing.

32
00:02:38,349 --> 00:02:45,910
And with this configuration there are three solid rocket boosters attached.

33
00:02:45,910 --> 00:03:12,379

This is the time-lapse of the service mobile tower being pulled away from the rocket.

34
00:03:12,379 --> 00:03:18,099
The launch team has been preparing for the loading of cryogenic propellants, which

35
00:03:18,099 --> 00:03:21,280
will begin in about a half an hour.

36
00:03:21,280 --> 00:03:25,680
At this time there are no technical issues being worked.

37
00:03:25,680 --> 00:03:31,650
We expect to be getting a weather briefing here very shortly, in about 10 minutes

38
00:03:31,650 --> 00:03:37,170
that will give us a complete look at the forecast of what we expect to have at liftoff

39
00:03:37,170 --> 00:03:39,020
time.