1
00:00:00,000 --> 00:00:03,280
Wow, it is so tall.

2
00:00:08,160 --> 00:00:13,400
What do you get when you engineer over 10 million pounds of steel 350 feet high?

3
00:00:13,400 --> 00:00:17,340
A very unique capable and monstrous mobile launcher.

4
00:00:17,340 --> 00:00:21,340
We're here at the Kennedy Space Center
ready to make a move on the mobile launcher.

5
00:00:21,340 --> 00:00:24,320
And to tell us a little bit
more about the mobile launcher today is

6
00:00:24,320 --> 00:00:27,400
our senior project manager Cliff Lanham.
Cliff how's it going today?

7
00:00:27,400 --> 00:00:28,420
Doing well, Yves.

8
00:00:28,420 --> 00:00:32,020
Fantastic. Now Cliff can you tell us a
little bit more about the mobile

9
00:00:32,020 --> 00:00:35,940
launcher and what it does? Sure, the
mobile launcher is designed to allow

10
00:00:35,940 --> 00:00:41,160
platform for stacking, assembling, testing
and checking out the SLS and Orion.

11
00:00:41,160 --> 00:00:45,880
It's also used to transfer the vehicle out to
the pad and also the platform that the

12
00:00:45,900 --> 00:00:48,240
rocket will actually launch from.

13
00:00:48,240 --> 00:00:50,380
Now was this mobile launcher used in previous launches?

14
00:00:50,380 --> 00:00:54,840
No it wasn't, it was actually
built originally for the Ares 1 program.

15
00:00:54,840 --> 00:00:59,820
NASA repurposed it, got some cost
efficiencies to use for SLS and Orion

16
00:00:59,820 --> 00:01:04,740
now with SLS being a much
bigger, more powerful rocket we've had to

17
00:01:04,740 --> 00:01:07,820
do increased structural modifications to the tower

18
00:01:07,820 --> 00:01:12,410
and base, as well is enlarge the flame hole. Now part of those renovations have

19
00:01:12,410 --> 00:01:17,900
included adding over 40 subsystems that
include mechanical electrical and fluid

20
00:01:17,900 --> 00:01:23,810
systems, as well as miles and miles of tube and piping. Ok, now the mobile launcher

21
00:01:23,810 --> 00:01:26,360
has those umbilicals that hang to the
side of them.

22
00:01:26,360 --> 00:01:29,900
What are those used for? Well there's
plenty of launch accessories and

23
00:01:29,900 --> 00:01:36,020
umbilicals that provide cooling, power,
data, fuel those types of commodities to

24
00:01:36,020 --> 00:01:40,160
the rocket. And then so when you talk
about t-minus zero is that the actual

25
00:01:40,160 --> 00:01:44,060
point where the rocket lifts off? That's
right, t-zero is when the signal's given,

26
00:01:44,060 --> 00:01:48,560
the rocket ignites and it's going and
the umbilical arms will retract back

27
00:01:48,560 --> 00:01:51,880
toward the tower and get out of the way
of the rocket as it's coming by.

28
00:01:51,880 --> 00:01:56,080
And so, how exactly does the mobile launcher go
from the Vehicle Assembly Building over

29
00:01:56,090 --> 00:01:59,030
to the pad? What happens is
crawler-transporter comes in underneath

30
00:01:59,030 --> 00:02:03,110
the base of the mobile launcher, picks it
up off its pedestals and then will roll

31
00:02:03,110 --> 00:02:08,540
out to either the VAB to begin rocket
stacking or it'll take the rocket out

32
00:02:08,540 --> 00:02:10,760
from the VAB to the pad to get ready for
launch.

33
00:02:10,760 --> 00:02:15,080
So the crawler is capable of lifting the
mobile launcher with the rocket stack on it?

34
00:02:15,080 --> 00:02:19,550
That's correct. Very well, very well.
So Cliff thank you so much for the tour