
PATH TO THE PAD
ARTEMIS I
EPISODE THREE: ROLL TO THE PAD
ARTEMIS

1
00:00:02,320 --> 00:00:08,560
Across the nation are sacred sites that\h
capture the spirit of America’s character\h\h

2
00:00:10,000 --> 00:00:15,920
and one of those places is right\h
here. The Kennedy Space Center.
\h

3
00:00:17,600 --> 00:00:23,040
Every single vehicle that has carried\h
humans beyond the bounds of low Earth orbit\h\h

4
00:00:23,040 --> 00:00:28,240
has undergone integration and testing\h
in that vehicle assembly building,\h\h

5
00:00:28,240 --> 00:00:33,120
crawled down this roadway and launched\h
right here from the Kennedy Space Center.\h\h

6
00:00:33,120 --> 00:00:38,960
The Space Launch System mated with the Orion\h
spacecraft will continue this proud tradition.
\h

7
00:00:39,600 --> 00:00:44,320
As soon as we rollout of the Vehicle\h
Assembly Building, High Bay 3,\h\h

8
00:00:44,320 --> 00:00:51,040
and the world gets a chance to see this rocket,\h
I think, I think it is going to be shocking.
\h

9
00:00:51,040 --> 00:00:55,680
On March 17th, NASA took a giant step\h
toward returning humanity to the moon.\h\h

10
00:00:56,480 --> 00:01:02,160

The fully assembled Space Launch System rocket\h
and Orion spacecraft for the Artemis I mission\h\h

11
00:01:02,160 --> 00:01:05,680
made its debut outside the massive\h
Vehicle Assembly Building.
\h

12
00:01:06,480 --> 00:01:12,880
We've seen the mobile launcher outside, and it's\h
massive, but now add an over-300-foot rocket\h\h

13
00:01:12,880 --> 00:01:17,120
on top of it, it's just gonna be amazing.
Charlie Blackwell-Thompson,\h\h

14
00:01:17,120 --> 00:01:20,960
oversees the launch countdown, ultimately\h
providing the "go" for launch.
\h

15
00:01:22,160 --> 00:01:28,240
NTD, launch director, representing this team\h
and all the men and women that have worked to\h\h

16
00:01:28,240 --> 00:01:35,680
make this day happen, I proudly give you a go to\h
roll the Artemis launch vehicle to the pad.
\h

17
00:01:35,680 --> 00:01:44,240
Ladies and gentlemen, the world's\h
most powerful rocket right here.
\h

18
00:01:47,920 --> 00:01:52,080
Once outside, the rocket began its\h
nearly four-mile journey to the pad,\h\h

19
00:01:52,080 --> 00:01:55,920
riding atop a 6.6-million-pound\h

crawler-transporter,\h\h

20
00:01:55,920 --> 00:01:59,520
which was originally constructed to\h
transport the Apollo Moon rocket.
\h

21
00:01:59,520 --> 00:02:04,080
In one year, we have completely stacked the\h
vehicle, we have completed most of our testing,\h\h

22
00:02:04,080 --> 00:02:10,880
all very successful, and we are so close to\h
launch. The excitement is just crazy.
\h

23
00:02:12,640 --> 00:02:18,240
Now NASA’s new Moon rocket is making the same\h
journey the Saturn V took 50 years ago.
\h

24
00:02:18,240 --> 00:02:24,560
And just as all eyes are on the SLS tonight\h
as it makes its journey. In a few short weeks,\h\h

25
00:02:24,560 --> 00:02:28,880
all eyes are going to be on the sky\h
as it rocks the Space coast and takes\h\h

26
00:02:28,880 --> 00:02:34,880
its maiden flight around the Moon.
It is amazing to see the culmination of all\h\h

27
00:02:34,880 --> 00:02:40,080
of this work of many years from many industries of\h
many people that have come and go to have a chance\h\h

28
00:02:40,080 --> 00:02:44,960
to then now see their work going over to the\h
pad and then launching to go to the Moon.
\h

29
00:02:46,960 --> 00:02:52,800
The rocket is rolling to historic launch\h
complex 39B – its launch pad used for both\h\h

30
00:02:52,800 --> 00:02:58,080
Apollo and shuttle launches, sending hundreds\h
of astronauts to space throughout the decades\h\h

31
00:02:58,640 --> 00:03:04,400
and now on tap to send hundreds more as we return\h
to the Moon and venture beyond to Mars.
\h

32
00:03:06,160 --> 00:03:09,360
But for this mission, there\h
will be no astronauts on board.\h\h

33
00:03:09,920 --> 00:03:15,040
Before the uncrewed Artemis I stack can\h
launch to our nearest celestial body,\h\h

34
00:03:15,040 --> 00:03:21,600
it has to travel to the pad for a wet dress\h
rehearsal – a test run of rocket, capsule,\h\h

35
00:03:21,600 --> 00:03:26,320
launch team and launch pad through their\h
paces simulating a launch countdown.
\h

36
00:03:27,520 --> 00:03:32,480
When we get to the pad, the pad team will be\h
connecting all the interfaces between the pad\h\h

37
00:03:32,480 --> 00:03:38,160
and mobile launcher so that we can go ahead and\h
start our operations at the pad. So at that point\h\h

38
00:03:38,160 --> 00:03:43,040

the launch director really takes over and she will\h
go down the sequence as if it was really a normal\h\h

39
00:03:43,760 --> 00:03:47,680
launch day.
Wet dress rehearsal\h\h

40
00:03:47,680 --> 00:03:54,080
is essentially launch without a launch. It\h
is really the reason we're doing it is to\h\h

41
00:03:54,960 --> 00:04:02,000
verify and validate all of the pieces that go\h
into launch countdown. So wet dress is really\h\h

42
00:04:02,000 --> 00:04:08,160
our opportunity to find any issues or adjustments\h
that we need to make in our launch countdown.
\h

43
00:04:08,160 --> 00:04:13,200
For Artemis I, the wet dress rehearsal is\h
the final and most critical test before\h\h

44
00:04:13,200 --> 00:04:18,960
the rocket can return to the launch pad for\h
liftoff to the Moon. During the countdown,\h\h

45
00:04:18,960 --> 00:04:25,680
over 730,000 gallons of super-cooled liquid\h
propellants will be loaded into the rocket as\h\h

46
00:04:25,680 --> 00:04:30,960
part of the nearly two-day launch countdown.
We will configure all of the ground systems\h\h

47
00:04:30,960 --> 00:04:38,080
exactly the way we would for launch, and we will\h
fully load the core stage and the interim cryo\h\h

48

00:04:38,080 --> 00:04:44,960
propulsion stage with their liquid fuels. That'll\h
be the first time that that's been done from here\h\h

49
00:04:44,960 --> 00:04:49,920
at Kennedy Space Center. There have been pieces\h
of these things done in multiple different areas.\h\h

50
00:04:50,480 --> 00:04:55,280
We've tested all of these systems in multiple\h
different locations, but this will be the first\h\h

51
00:04:55,280 --> 00:04:59,920
time where we pull it all together and do all\h
of it all in the same progression that we've got\h\h

52
00:05:00,720 --> 00:05:04,640
laid out for launch countdown.
Wet dress is the biggest milestone\h\h

53
00:05:04,640 --> 00:05:10,240
we have aside from launch because that\h
means that the rocket is now put together,\h\h

54
00:05:10,240 --> 00:05:17,840
has been tested separately and together and it is\h
ready to go and be filled with fuel to simulate\h\h

55
00:05:17,840 --> 00:05:23,040
how we're gonna to do it at the pad and then it\h
tells us the rocket is ready to go for launch.
\h

56
00:05:23,680 --> 00:05:29,360
And, behind that wet dress rehearsal is a launch\h
team made up of hundreds of engineers monitoring\h\h

57
00:05:29,360 --> 00:05:37,680
each system of the 320-foot-tall Artemis I rocket\h
and capsule. Sitting in firing room 1 is the core\h\h

58
00:05:37,680 --> 00:05:43,120
launch control team, monitoring hundreds of launch\h
commit criteria to ensure the ground systems and\h\h

59
00:05:43,120 --> 00:05:47,120
flight hardware are ready for launch.
Now you would think that launch control\h\h

60
00:05:47,120 --> 00:05:53,600
team in firing room 1 is it, that's all you\h
need. We have an expansive support team across\h\h

61
00:05:54,720 --> 00:05:59,120
really the entire NASA enterprise that\h
is supporting us on launch day.
\h

62
00:05:59,680 --> 00:06:04,800
And that support spans the entire nation,\h
from additional system engineers sitting in\h\h

63
00:06:04,800 --> 00:06:10,560
Kennedy's Firing Room 2, to the flight control\h
team at Johnson Space Center in Houston, to the\h\h

64
00:06:10,560 --> 00:06:15,440
contractors responsible for designing and building\h
each segment of the rocket and capsule.
\h

65
00:06:16,160 --> 00:06:21,600
This team is really shaping up to be a\h
great, very skilled and ready to operate\h\h

66
00:06:21,600 --> 00:06:26,320
and execute launch for Artemis I.
With the Artemis I launch team now fully\h\h

67
00:06:26,320 --> 00:06:33,040
certified, and the wet dress rehearsal complete,\h

SLS and Orion are ready for their final pitstop:\h\h

68
00:06:33,040 --> 00:06:39,040
returning to the VAB before venturing\h
back to Launch Pad 39B for liftoff.
\h

69
00:06:39,760 --> 00:06:45,040
I mean we are going, and we are going together,\h
and we are having an opportunity to do this\h\h

70
00:06:45,040 --> 00:06:50,080
in a new generation of space exploration in\h
which I can say that I'm really a part of.
\h

71
00:06:50,080 --> 00:06:53,280
You know, you come every day to the\h
VAB and you see the rocket and you\h\h

72
00:06:53,280 --> 00:06:57,680
can't believe what we have accomplished.
People throughout history have always explored\h\h

73
00:06:57,680 --> 00:07:01,920
and you never know what you're going to learn.
Exploration is not always about the destination,\h\h

74
00:07:01,920 --> 00:07:06,560
but it's the path that you travel,\h
the things you learn along the way.
\h

75
00:07:06,560 --> 00:07:11,360
And the things we're going to learn are\h
going to be incredible. We can't even begin\h\h

76
00:07:11,360 --> 00:07:20,080
to understand what those are today.
Our workforce has been a relentless spirit. We\h\h