00:00:00,320 --> 00:00:05,230
[Music]

00:00:05,719 --> 00:00:12,059
the United Launch Alliance Delta for

00:00:09,089 --> 00:00:15,208
heavy one of the largest rockets in the

00:00:12,058 --> 00:00:17,549
world and it's not often NASA's launch

00:00:15,208 --> 00:00:21,559
services program chooses to launch it in

00:00:17,550 --> 00:00:24,929
fact they've never launched it until now

00:00:21,559 --> 00:00:28,018
I'm Nikki Fox project scientist for

00:00:24,928 --> 00:00:30,479
Parker Solar Probe and tonight you will

00:00:28,018 --> 00:00:32,850
witness up close and personal this

00:00:30,480 --> 00:00:36,780
spacecraft being launched on her journey

00:00:32,850 --> 00:00:39,660
to the Sun watch as we encapsulate the

00:00:36,780 --> 00:00:41,969
spacecraft as you can see Parker Solar

00:00:39,659 --> 00:00:44,339
Probe to your left looks pretty small

00:00:41,969 --> 00:00:46,910
compared to these enormous fairing
halves that protect her during launch

that is because the Delta 4 was made to

launch satellites the size of school buses so why on earth would NASA need a

rocket this powerful to launch our little 1500 pound spacecraft to the Sun

speed that's right pure and simple parka

Solar Probe needs the most launch power

she can get to leave Earth and get to the Sun it takes 55 times more energy to

get to the Sun than Mars and we need all of it to get into the right orbit around

our star parka Solar Probe built by the

Johns Hopkins Applied Physics lab will
keep her protective heat shield between herself and the Sun once she's in that orbit the spacecraft will soar through the sun's three million degree plasma atmosphere that we call the corona and give our scientists some incredible data to answer long sought-after questions about the Sun [Music] back on the launch pad United Launch Alliance as delta 4 heavy is just the right rocket 3 massive booster caused a cryogenic second stage and even a third stage specially made by northrop grumman
to propel parker over 94 miles per

second at spacecraft separation liftoff

in five four three two one zero

and liftoff of the Parker Solar Probe on

her way to unlock the mysteries of the

Sun

that was awesome

why don't we watch it again from the

front side bye-bye parka the coolest

hottest mission Under the Sun stay cool

baby girl

you