



1
00:00:00,299 --> 00:00:09,140

My name is Ashley Korzun and I'm an Aerospace Engineer here at NASA Langley Research Center.

2
00:00:09,140 --> 00:00:13,730

Music

3
00:00:13,730 --> 00:00:18,970

What I work on are the aerodynamics for the advanced technologies that we're looking

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00:00:18,970 --> 00:00:25,599

at to enable us to send very large payloads and humans to the surface of Mars.

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00:00:25,599 --> 00:00:31,720

Propulsive Decent Technologies Project a part of NASA's Space Technologies Mission Directorate

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00:00:31,720 --> 00:00:36,059

is looking at supersonic retro propulsion and what this is going to allow us to do is

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00:00:36,059 --> 00:00:41,949

land much larger payloads at various locations across the surface of Mars and be able to

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00:00:41,949 --> 00:00:43,690

it a lot more precisely

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00:00:43,690 --> 00:00:47,210

We're learning new thing every day as we're pushing forward.

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00:00:47,210 --> 00:00:52,170

These are not technologies that we have flown, we're pushing the technologies forward and

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00:00:52,170 --> 00:00:55,820

each day we're getting a step closer to
put humans on the surface of Mars.

12

00:00:55,820 --> 00:01:02,280

What's behind me is the inflatable structure
for an aerodynamic decelerator it's a large

13

00:01:02,280 --> 00:01:07,500

heat shield that you would fill with gas and
you deploy this while you are enter the atmosphere

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00:01:07,500 --> 00:01:12,210

of Mars and what this does is it helps your
vehicle slow down and you can reach a lot

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00:01:12,210 --> 00:01:17,080

higher altitudes and increase the size of
the mass you can get down to the surface.

16

00:01:17,080 --> 00:01:21,560

The medley instrumentation package is sitting
on the surface of Mars.

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00:01:21,560 --> 00:01:27,660

It's installed into the heat shield that
landed the Curiosity Rover and that instrumentation

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00:01:27,660 --> 00:01:32,070

package included pressure and temperature
measurement that gave us for the first time

19

00:01:32,070 --> 00:01:36,921

really great data of what the vehicles we
send to Mars are experiencing as they are