HOW DID PERSEVERANCE PICK ITS LANDING SPOT ?

1
00:00:01,600 --> 00:00:04,508
How did Perseverance Pick Its Landing Spot?

2
00:00:08,305 --> 00:00:09,568
We Asked a NASA Technologist.

3
00:00:09,568 --> 00:00:13,841
When NASA decides to send a rover to Mars,\h
a whole group of experts gets together to

4
00:00:13,841 --> 00:00:18,080
figure out where it needs to go for the best\h
science for that mission. Perseverance's mission

5
00:00:18,080 --> 00:00:24,160
was to find the signs of past life on Mars. So, all\h
the experts got together and picked Jezero crater.

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00:00:24,160 --> 00:00:29,440
Jezero crater is an ancient lake bed and the\h
things that make it interesting for the scientists,

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00:00:29,440 --> 00:00:33,440
the cliffs and the rocks and the craters — these\h
are the things that make it challenging to the

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00:00:33,440 --> 00:00:38,480
engineers to land there. In order to land safely\h
at Jezero crater, Perseverance needed a brand

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00:00:38,480 --> 00:00:42,880
new technology called Terrain Relative\h
Navigation. Terrain Relative Navigation

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00:00:42,880 --> 00:00:48,320
is basically like adding eyes to Perseverance.\h
For the first time, as she's descending on the

11
00:00:48,320 --> 00:00:53,120

parachute, Perseverance was able to look at\h
the ground and see it and figure out where

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00:00:53,120 --> 00:00:58,560
she was and then decide where to go based on\h
the hazards that she could see on the ground.

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00:00:58,560 --> 00:01:02,880
This allowed Perseverance to thread the needles\h
between all the different hazards of Jezero crater

14
00:01:02,880 --> 00:01:08,240
in order to land safely. So how did Perseverance\h
pick its landing spot? With a brand new pair of

15
00:01:08,240 --> 00:01:13,519
eyes that allowed it to land in the most\h
challenging terrain ever attempted on Mars.