1
00:00:00,000 --> 00:00:03,000
NARRATOR: When water causes a vehicle's tires to lose

2
00:00:03,001 --> 00:00:06,001
contact with the road, the effect is called hydroplaning…

3
00:00:06,002 --> 00:00:10,002
And its affects can be dangerous, especially at high speeds.

4
00:00:10,003 --> 00:00:14,003
Commercial aircraft touch down on the runway at speeds

5
00:00:14,004 --> 00:00:20,004
between 160 and 170 miles per hour. Maintaining contact

6
00:00:20,005 --> 00:00:23,005
with the runway surface is critically important.

7
00:00:23,006 --> 00:00:27,006
NASA researchers studied water buildup on runways and

8
00:00:27,007 --> 00:00:31,007
determined that by cutting thin grooves in the pavement -

9
00:00:31,008 --> 00:00:35,008
performing as the tread of a tire - water would channel away

10
00:00:35,009 --> 00:00:38,009
from the surface and reduce the risk of hydroplaning.

11
00:00:38,010 --> 00:00:42,010
The NASA research aimed at improving runway safety for

12
00:00:42,011 --> 00:00:46,011
aircraft has found its way on America's roadways

13
00:00:46,012 --> 00:00:50,012

Now, highway builders groove pavement to help prevent

14
00:00:50,013 --> 00:00:52,013
cars from hydroplaning.

15
00:00:52,014 --> 00:00:57,014
Winter's ice and snow create additional safety hazards for

16
00:00:57,015 --> 00:01:01,015
aircraft as they land. NASA studied how airplanes braked in

17
00:01:01,016 --> 00:01:06,016
these conditions to develop the International Runway Friction

18
00:01:06,017 --> 00:01:10,017
Index. This guide helps airport operators assess runway

19
00:01:10,018 --> 00:01:14,018
conditions to help pilots execute a safe and smooth landing.