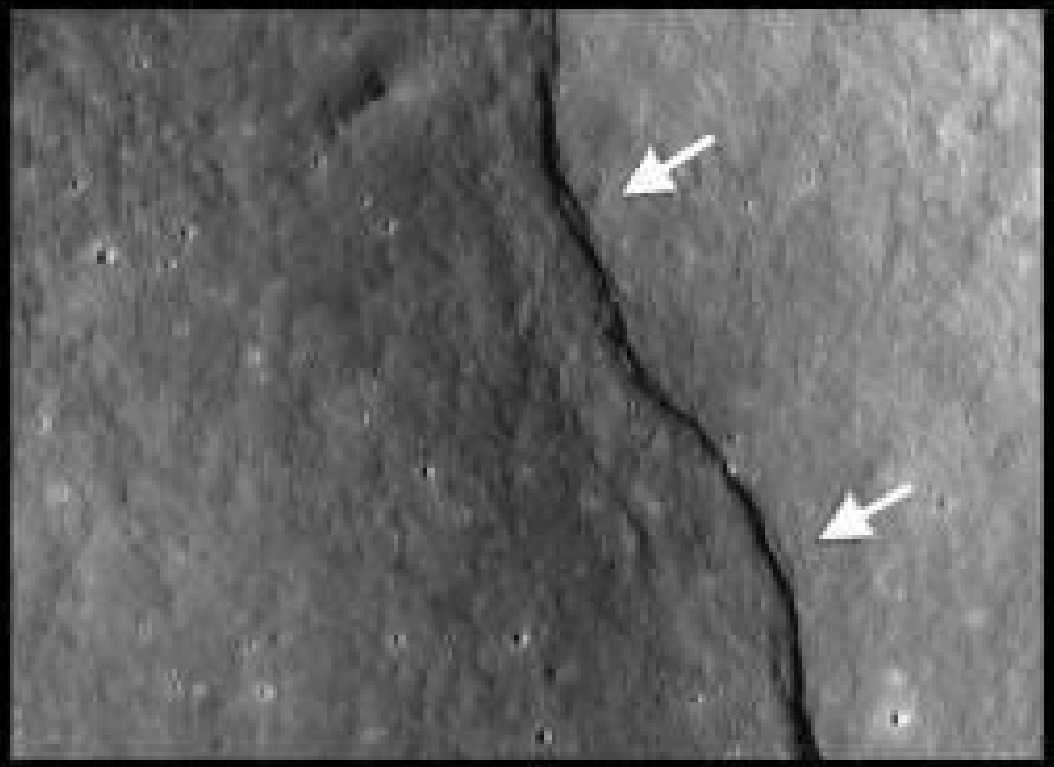

1
00:00:00,010 --> 00:00:05,010
[Narrator] A newly published study using images from NASA’s Lunar Reconnaissance Orbiter reveal

2
00:00:05,030 --> 00:00:10,060
tantalizing hints that the Moon has slightly shrunk in the recent geologic past and in fact

3
00:00:10,080 --> 00:00:14,110
may still be actively shrinking today. The research,

4
00:00:14,130 --> 00:00:18,150
lead by Dr. Tom Watters from the Smithsonian National Air and Space Museum

5
00:00:18,170 --> 00:00:24,170
involved searching thousands of lunar images for specific fault structures called “lobate scarps.”

6
00:00:25,210 --> 00:00:29,290
[Dr. Watters] We know the moon is shrinking by looking at the lobate scarps in detail.

7
00:00:29,310 --> 00:00:34,330
They actually reflect the crustal materials of the moon

8
00:00:34,350 --> 00:00:39,370
moon being pushed together, breaking, and being thrust over one another.

9
00:00:39,390 --> 00:00:42,510
So that indicates that something has been causing

10
00:00:42,530 --> 00:00:45,600
the moon to actually contract, or shrink.

11
00:00:45,620 --> 00:00:50,620
[Narrator] Finding that the lobate scarps are globally distributed indicates that contraction of the lunar surface is

12
00:00:50,640 --> 00:00:55,670
happening on a global scale and this is critical knowledge to understand the geologic history of the moon.

13
00:00:55,690 --> 00:01:00,720

The next steps in this research will be to more accurately assess the age of these scarps

14
00:01:00,740 --> 00:01:04,750
scarps to help determine how geologically active the moon might still be today.

15
00:01:05,790 --> 00:01:09,790
[Dr. Watters] What's exciting about these findings for me is that the moon

16
00:01:09,810 --> 00:01:13,810
is not a dead body. It's not

17
00:01:13,830 --> 00:01:17,830
an object where everything that happened on the moon

18
00:01:17,850 --> 00:01:21,850
happened billions of years ago. These scarps

19
00:01:21,870 --> 00:01:25,880
could be younger than a billion years, they

20
00:01:25,900 --> 00:01:29,900
could be in fact as young as a couple of hundred million years

21
00:01:29,920 --> 00:01:33,920
old, or they could be even younger than that.

22
00:01:33,940 --> 00:01:38,980
And that means in geologic terms, the moon is active.

23
00:01:39,000 --> 00:01:43,020
[Narrator]
To learn more about this story visit the home page for the Lunar Reconnaissance Orbiter