



1
00:00:00,800 --> 00:00:04,200

It's no surprise that humans influence the surface of our planet,

2
00:00:04,220 --> 00:00:08,340

but our reach can go farther than that. Humans affect space, too.

3
00:00:09,440 --> 00:00:12,540

We know storms from the sun can change the space environment

4
00:00:12,560 --> 00:00:16,700

around Earth, which can have an impact on satellites and power grids.

5
00:00:16,720 --> 00:00:21,700

Scientists now know that Cold War era tests in the 1950s caused similar effects.

6
00:00:24,080 --> 00:00:25,120

Particles around Earth

7
00:00:25,140 --> 00:00:28,540

are organized into layers known as radiation belts.

8
00:00:28,540 --> 00:00:32,840

The tests created temporary extra radiation closer to Earth.

9
00:00:32,840 --> 00:00:37,600

Other effects could be seen all around the world. Aurora appeared at the equator

10
00:00:37,620 --> 00:00:41,730

instead of the poles, utility grids in Hawaii were strained,

11
00:00:41,750 --> 00:00:45,910

and in some cases, satellites above test sites were affected.

12
00:00:45,920 --> 00:00:50,060

Using Cold War history to learn more about the physics of our complex

13
00:00:50,060 --> 00:00:54,600

space environment helps us better protect our satellites and astronauts in space.

14

00:00:54,600 --> 00:00:58,240

music