



The image shows a central Earth with two concentric, glowing radiation belts. The inner belt is a bright yellow-green ring, and the outer belt is a darker blue-green ring. Two thin white lines represent satellite orbits: one is inside the inner belt, and the other is between the two belts. The background is a dark space filled with stars.

Van Allen B
Van Allen A

1
00:00:00,000 --> 00:00:06,280
music

2
00:00:06,300 --> 00:00:10,490
The Van Allen radiation belts: two giant swaths of radiation

3
00:00:10,510 --> 00:00:16,660
around Earth were the first discover of the space age in 1958.

4
00:00:16,680 --> 00:00:20,700
In August 2012, NASA launched the Van Allen Probes

5
00:00:20,720 --> 00:00:24,860
to provide the most detailed picture of the belts ever seen.

6
00:00:24,880 --> 00:00:28,950
Within days of launch, the probes revealed a third, never before seen ring

7
00:00:28,970 --> 00:00:33,030
of radiation that persisted for about a month.

8
00:00:33,050 --> 00:00:37,100
Scientists already knew the belts shrink and swell in response to incoming

9
00:00:37,120 --> 00:00:41,160
energy from the sun, but they don't know exactly how.

10
00:00:41,180 --> 00:00:45,230
The discovery of a new belt offers additional clues to map out the mysteries of the region,

11
00:00:45,250 --> 00:00:49,260
and shows us that first discovery of the space age can still