



310 mi (500km)

1  
00:00:05,090 --> 00:00:01,629

[Music]

2  
00:00:07,039 --> 00:00:05,100

300 trillion or so that's the

3  
00:00:09,080 --> 00:00:07,049

number of photons released with each

4  
00:00:11,690 --> 00:00:09,090

laser shot from the

5  
00:00:13,820 --> 00:00:11,700

atlas instrument sounds like a large number but when

6  
00:00:16,129 --> 00:00:13,830

the photons sail through the atmosphere and

7  
00:00:18,230 --> 00:00:16,139

bounce off the earth they scatter in

8  
00:00:20,930 --> 00:00:18,240

all directions just like

9  
00:00:22,370 --> 00:00:20,940

atlas light does it only receives back

10  
00:00:24,770 --> 00:00:22,380

those photons that reflect

11  
00:00:27,620 --> 00:00:24,780

directly off the instrument about

12  
00:00:30,380 --> 00:00:27,630

a dozen this number

13  
00:00:32,540 --> 00:00:30,390

is minuscule but atlas measures the time

14

00:00:34,549 --> 00:00:32,550

it takes for photons to return

15

00:00:36,500 --> 00:00:34,559

very precisely allowing