1
00:00:00,040 --> 00:00:04,120
When we were coming in, we saw really substantial plumes of

2
00:00:04,120 --> 00:00:08,210
SO2 that the CalTech guys were measuring and we

3
00:00:08,210 --> 00:00:12,320
see signs of it in our instrument and then very sustained levels of the fine

4
00:00:12,320 --> 00:00:16,420
sulfate aerosol and this is something that they call "vog," which is sort of

5
00:00:16,420 --> 00:00:20,490
like fog, except it's from a volcano and

6
00:00:20,490 --> 00:00:24,570
the volcano is emitting a lot of SO2.

7
00:00:24,570 --> 00:00:28,650
Some volcanoes emit low levels all the time. I think Kilauea's emitting

8
00:00:28,650 --> 00:00:32,880
fairly high levels fairly often. This stuff oxidizes to make sulfuric acid and that

9
00:00:32,880 --> 00:00:37,020
then forms small droplets of sulfuric acid

10
00:00:37,020 --> 00:00:41,020
and when these guys take up water, they swell and make the real visible

11
00:00:41,020 --> 00:00:45,090
haze, the strong haze that we saw the whole time we were in Kona.

12
00:00:45,090 --> 00:00:49,500
Sulfuric acid is not good for you; this is a big part of acid rain

13
00:00:49,500 --> 00:00:53,590

and the same sort of chemistry happened in the U.S.

14
00:00:53,590 --> 00:00:57,690
that precipitated the Clean Air Act.

15
00:00:57,690 --> 00:01:01,730
So all the SO2 in that case was mostly from coal-burning,