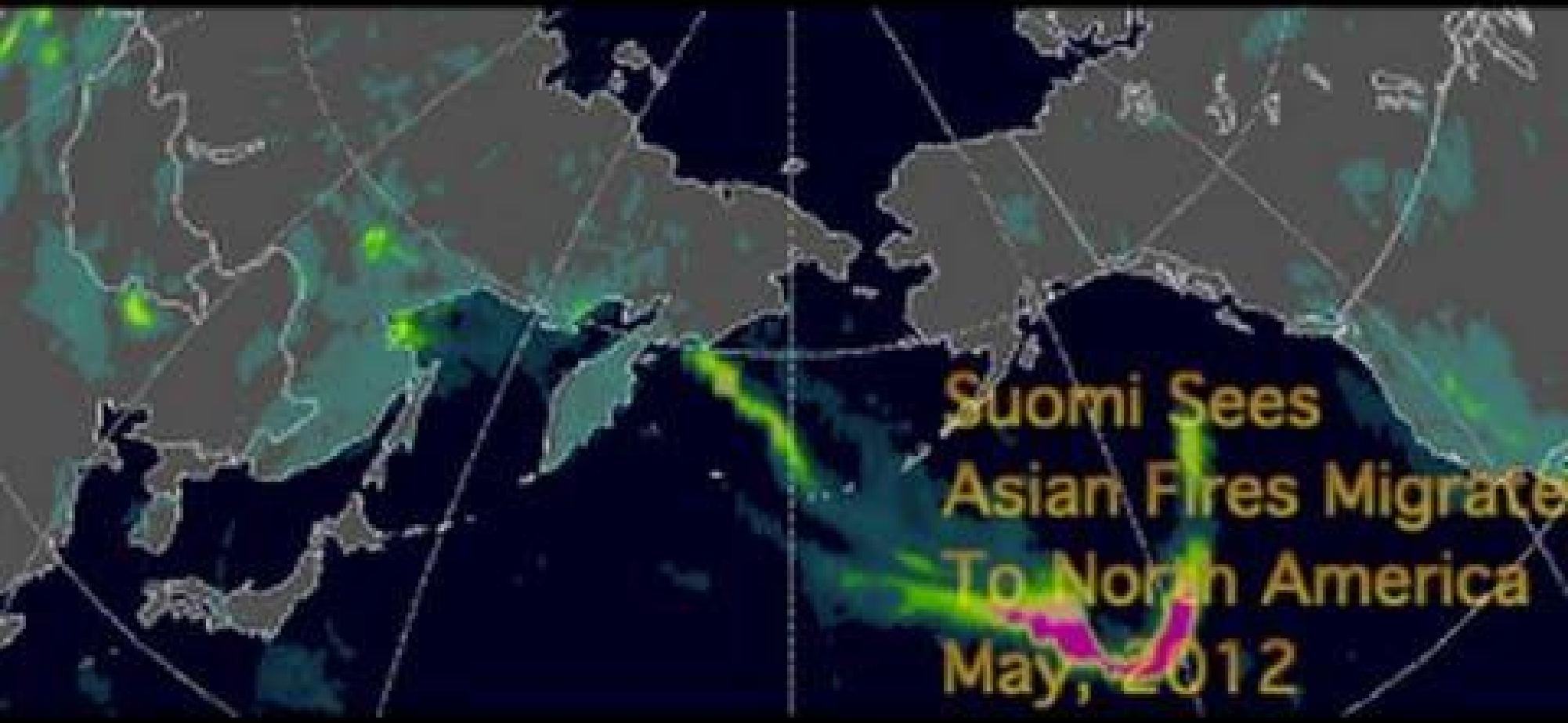
Suomi Sees
Asian Fires Migrate
To North America
May, 2012

1
00:00:00,020 --> 00:00:04,120
(Music)

2
00:00:04,140 --> 00:00:08,300
The images that I made

3
00:00:08,320 --> 00:00:12,460
basically came from a new instrument that's on the Suomi NPP satellite, called

4
00:00:12,480 --> 00:00:16,640
OMPS. OMPS main mission is to measure ozone

5
00:00:16,660 --> 00:00:20,810
but one of the other neat things it can do is, it can detect smoke and dust.

6
00:00:20,830 --> 00:00:24,900
What you are looking in the images is something that's called the aerosol index.

7
00:00:24,920 --> 00:00:29,010
The amount of aerosols in the atmosphere do depend on season.

8
00:00:29,030 --> 00:00:33,110
Typically you see a lot of smoke in the atmosphere during the spring.

9
00:00:33,130 --> 00:00:37,290
The smoke is essentially being produced by fires

10
00:00:37,310 --> 00:00:41,460
in sort of the boarder between Russia and China.

11
00:00:41,480 --> 00:00:45,550
In order to grow crops and clear the land, they start burning

12
00:00:45,570 --> 00:00:49,600
to clear whatever land they want to clear. In the case of these fires,

13
00:00:49,620 --> 00:00:53,670

the smoke can get lofted to four kilometers to maybe ten kilometers

14
00:00:53,690 --> 00:00:57,670
in the atmosphere. At that point they get picked up by higher level winds

15
00:00:57,690 --> 00:01:01,750
and they get transported globally. In this case we saw that the smoke

16
00:01:01,770 --> 00:01:05,880
was transported all the way to North America. And in certain cases we see

17
00:01:05,900 --> 00:01:09,990
smoke that actually circles the globe.

18
00:01:10,010 --> 00:01:14,170
The colors on the image are artificial. But what they are meant to convey

19
00:01:14,190 --> 00:01:18,330
is basically a sense of the density of the smoke. So that

20
00:01:18,350 --> 00:01:22,510
bluer and greener colors represent less smoke.

21
00:01:22,530 --> 00:01:26,610
The yellow and the reds represent more smoke.

22
00:01:26,630 --> 00:01:30,730
Along with the colors I sort of added a level of transparency.

23
00:01:30,750 --> 00:01:34,840
So, the less dense the smoke is, the more you can see

24
00:01:34,860 --> 00:01:38,930
through it and the more dense it is, the less you can see through it.

25
00:01:38,950 --> 00:01:43,010
Aerosols are an increasingly important

26
00:01:43,030 --> 00:01:47,060
aspect of studying what’s happening to the climate. Climate occurs over

27
00:01:47,080 --> 00:01:51,110
a long period of time. We need a long-term dataset to follow what

28
00:01:51,130 --> 00:01:55,300
is happening and to better understand what is happening.

29
00:01:55,320 --> 00:01:59,490
So, it is important to keep this climate record going and OMPS being

30
00:01:59,510 --> 00:02:03,670
the next instrument in line, it is going to pick up the slack and continue the record.

31
00:02:12,030 --> 00:02:07,860
(Music)