
PURDUE
Day

1
00:00:01,935 --> 00:00:04,921
[Music]

2
00:00:09,659 --> 00:00:12,645
[Thunder]

3
00:00:12,846 --> 00:00:14,998
>>What we're primarily
interested in studying

4
00:00:14,998 --> 00:00:17,817
is looking at the impact
on the chemistry

5
00:00:17,817 --> 00:00:19,335
of the stratosphere
from convection.

6
00:00:19,335 --> 00:00:20,637
>>There's these big storm
events

7
00:00:20,637 --> 00:00:23,189
that can happen in the summer
that can loft plumes of air

8
00:00:23,189 --> 00:00:25,291
from the troposphere
into the stratosphere.

9
00:00:25,325 --> 00:00:26,826
>>How many mineral dust
particles are there?

10
00:00:26,826 --> 00:00:28,178
How many smoke particles
are there?

11
00:00:28,178 --> 00:00:29,529

>>Halogenated species

12
00:00:29,529 --> 00:00:33,383
such as dichloromethane
and chloroform....

13
00:00:33,383 --> 00:00:33,950
>>Inorganic

14
00:00:33,950 --> 00:00:35,201
halogen compounds

15
00:00:35,201 --> 00:00:37,737
>>We measure
N2O and SF6, sulfur

16
00:00:37,737 --> 00:00:38,505
hexafluoride

17
00:00:38,505 --> 00:00:40,840
>>Pollutants
and other chemicals

18
00:00:40,840 --> 00:00:42,942
from low down in the boundary
layer where we live...

19
00:00:42,942 --> 00:00:43,927
>>And we care about the

20
00:00:43,927 --> 00:00:47,814
particles in the stratosphere
because it affects the

21
00:00:47,814 --> 00:00:48,398
radiation

22
00:00:48,398 --> 00:00:49,783
and the ozone layer.

23
00:00:51,351 --> 00:00:54,337
[Music]

24
00:01:18,895 --> 00:01:21,831
[Jet taking off]

25
00:01:21,831 --> 00:01:22,248
>>We're

26
00:01:22,248 --> 00:01:26,569
interested in how with changes
in convection and thunderstorms

27
00:01:26,569 --> 00:01:28,121
whether they get bigger
with climate change,