



1
00:00:12,416 --> 00:00:12,720

[Music]

2
00:00:12,720 --> 00:00:17,680

>>California has a lot of different geographic\h
regions and each of those has sort of a unique\h\h

3
00:00:17,680 --> 00:00:23,520

air quality. We've got the dense urban area in LA\h
that's all trapped by the South Coast air basin,\h\h

4
00:00:23,520 --> 00:00:27,520

we've got the Central Valley\h
that has a lot of oil production\h\h

5
00:00:27,520 --> 00:00:30,320

as well as a lot of ranches and\h
everything in between those two.

6
00:00:31,840 --> 00:00:33,360

>>We're in the boundary layer folks...

7
00:00:33,360 --> 00:00:35,520

>>Ryan's saying he can see some distinct layers...

8
00:00:36,480 --> 00:00:39,040

>>You guys see that smog on the\h
left hand side of the plane?

9
00:00:39,680 --> 00:00:44,800

>>NO is holding steady, background,\h
and so is NOx; Ozone is around 45 ppb.

10
00:00:47,640 --> 00:00:48,640

[Music]

11
00:00:48,640 --> 00:00:52,400

>>As much as it's for us to have some fun\h
and get on a plane and fly around for a week,\h\h

12
00:00:52,400 --> 00:00:55,680
it's also getting to actually engage with real\h\h

13
00:00:55,680 --> 00:00:58,720
people doing real science that's\h
gonna hopefully have a real impact.

14
00:00:58,720 --> 00:01:03,040
>>This is a fantastic flying laboratory that\h
you really can't experience anywhere else.\h\h

15
00:01:03,040 --> 00:01:06,720
We've had the opportunity to work around\h
the aircraft, ask the scientists how they\h\h

16
00:01:06,720 --> 00:01:11,040
do their job, work the instruments,\h
and basically be general air crew\h\h

17
00:01:11,040 --> 00:01:14,720
and get a general understanding\h
for how NASA Earth Science works.

18
00:01:18,520 --> 00:01:19,520
[Music]

19
00:01:19,520 --> 00:01:24,240
>>We're looking at NOx and Ozone. I really\h
like seeing how views outside of the window\h\h

20
00:01:24,240 --> 00:01:28,320
here are directly reflected on the plots\h
here and the measurements that we see.\h\h

21
00:01:28,320 --> 00:01:31,920
In the classroom you don't get\h
that degree in involvement,\h\h

22

00:01:31,920 --> 00:01:36,080
so it's fascinating to see how\h
everything is interconnected and related.

23
00:01:36,080 --> 00:01:39,680
>>I actually have never studied air\h
chemistry in the past. It was really\h\h

24
00:01:39,680 --> 00:01:44,160
cool to see the amount of interdisciplinary\h
work that NASA does through this program.

25
00:01:44,720 --> 00:01:49,040
>>It brings together people like me\h
from backgrounds in physics and math,\h\h

26
00:01:49,040 --> 00:01:54,080
people who have backgrounds in atmospheric\h
and earth science, biologists, chemists...

27
00:01:54,080 --> 00:01:57,360
>>It just kind of fueled my\h
curiosities even more and\h\h

28
00:01:57,360 --> 00:02:01,360
it really helped bridge together the connections\h
that i'm learning in my first year of grad school.