1
00:00:02,260 --> 00:00:05,880
[Music]

2
00:00:30,100 --> 00:00:35,050
>>NASA started investigating alternative fuels
as a way of reducing the carbon emissions

3
00:00:35,050 --> 00:00:37,160
from aircraft.

4
00:00:39,740 --> 00:00:46,739
>>We are studying the impact of alternative
fuel on the exhaust when jet engines burn

5
00:00:46,740 --> 00:00:52,840
biofuel, but also on the properties of the
contrails when biofuel is used.

6
00:00:56,600 --> 00:01:03,380
>>We're using the German Aerospace A320 to
burn alternative fuels, and the NASA DC-8

7
00:01:03,400 --> 00:01:09,000
to chase the A320 to measure the properties
of its exhaust and the contrails.

8
00:01:23,240 --> 00:01:13,120
[Music] [Airplane taking off]

9
00:01:41,920 --> 00:01:47,090
The German Aerospace has great expertise in
atmospheric modeling and measurements.

10
00:01:47,090 --> 00:01:51,000
They have instruments that we don't have,
and we have instruments that they don't have.

11
00:01:51,000 --> 00:01:56,000
We're able to combine all our instruments

on one aircraft and do this very extensive

12
00:01:56,000 --> 00:02:00,880
investigation that neither of the agencies
could perform on their own.

13
00:02:02,690 --> 00:02:10,460
>>We do lab experiments, we do flight experiments,
we are also performing model studies to investigate

14
00:02:10,479 --> 00:02:16,250
if a fraction of the global fleet of aviation
would burn biofuel, how the environmental