1
00:00:01,667 --> 00:00:06,433
[MUSIC]

2
00:00:06,433 --> 00:00:08,500
The first educators in the 2014

3
00:00:08,500 --> 00:00:10,167
Airborne Astronomy Ambassadors

4
00:00:10,167 --> 00:00:11,667
program were recently immersed

5
00:00:11,667 --> 00:00:13,000
in an astronomical science

6
00:00:13,000 --> 00:00:14,500
mission during a flight aboard

7
00:00:14,500 --> 00:00:15,667
NASA's Stratospheric Observatory

8
00:00:15,667 --> 00:00:17,667
for Infrared Astronomy, or

9
00:00:17,667 --> 00:00:19,333
SOFIA.

10
00:00:19,333 --> 00:00:20,500
The four teachers and informal

11
00:00:20,500 --> 00:00:22,333
educators,the first of 24

12
00:00:22,333 --> 00:00:23,500
scheduled to fly aboard the

13
00:00:23,500 --> 00:00:25,000

flying telescope this year,

14
00:00:25,000 --> 00:00:26,167
paired with astronomers and

15
00:00:26,167 --> 00:00:28,000
scientists to observe first-hand

16
00:00:28,000 --> 00:00:30,000
how airborne infrared astronomy

17
00:00:30,000 --> 00:00:31,667
is conducted.

18
00:00:31,667 --> 00:00:36,367
[airplane taking off]

19
00:00:36,367 --> 00:00:38,000
A joint program of NASA and the

20
00:00:38,000 --> 00:00:40,667
German Aerospace Center, DLR,

21
00:00:40,667 --> 00:00:42,667
SOFIA incorporates a 100-inch

22
00:00:42,667 --> 00:00:44,667
diameter German-built telescope

23
00:00:44,667 --> 00:00:46,333
mounted in a highly modified

24
00:00:46,333 --> 00:00:49,667
Boeing 747SP jetliner.

25
00:00:49,667 --> 00:00:51,000
SOFIA collects data in the

26
00:00:51,000 --> 00:00:52,333
infrared spectrum at up to

27
00:00:52,333 --> 00:00:55,000
45,000 feet in altitude- above

28
00:00:55,000 --> 00:00:56,667
the water vapor in the Earth's

29
00:00:56,667 --> 00:00:58,000
atmosphere that blocks infrared

30
00:00:58,000 --> 00:01:00,667
light at lower altitudes.

31
00:01:00,667 --> 00:01:02,000
The quartet on this first

32
00:01:02,000 --> 00:01:03,667
mission- two each from Wisconsin

33
00:01:03,667 --> 00:01:05,667
and Florida- saw how astronomers

34
00:01:05,667 --> 00:01:07,667
and scientists used the FORCAST

35
00:01:07,667 --> 00:01:09,000
instrument to analyze galactic

36
00:01:09,000 --> 00:01:11,000
dust clouds, pinpoint individual

37
00:01:11,000 --> 00:01:13,167
stars amidst dense clusters,

38
00:01:13,167 --> 00:01:14,667

study theories, and draw

39
00:01:14,667 --> 00:01:16,500
conclusions about star formation

40
00:01:16,500 --> 00:01:18,667
based on these observations.

41
00:01:18,667 --> 00:01:22,167
[mission chatter]

42
00:01:22,167 --> 00:01:23,500
They also interviewed many of

43
00:01:23,500 --> 00:01:25,000
the scientists, astronomers,

44
00:01:25,000 --> 00:01:26,333
mission managers, and flight

45
00:01:26,333 --> 00:01:27,833
crew members in order to share

46
00:01:27,833 --> 00:01:29,000
their "life stories" of being

47
00:01:29,000 --> 00:01:30,333
involved with NASA with their

48
00:01:30,333 --> 00:01:31,833
students and peers.

49
00:01:31,833 --> 00:01:33,500
[chatter]

50
00:01:33,500 --> 00:01:34,833
And since this particular flight

51
00:01:34,833 --> 00:01:36,167
flew over northern Canada,

52
00:01:36,167 --> 00:01:37,333
they were even able to see the

53
00:01:37,333 --> 00:01:38,833
Aurora Borealis-

54
00:01:38,833 --> 00:01:40,333
the Northern Lights-

55
00:01:40,333 --> 00:01:44,000
from SOFIA's windows.

56
00:01:44,000 --> 00:01:45,233
After their flight, the four

57
00:01:45,233 --> 00:01:46,333
educators took what they learned

58
00:01:46,333 --> 00:01:47,500
back to their classrooms and

59
00:01:47,500 --> 00:01:48,833
communities to promote science

60
00:01:48,833 --> 00:01:51,167
and astronomical literacy.

61
00:01:51,167 --> 00:01:52,333
The remaining 20 educators will

62
00:01:52,333 --> 00:01:53,833
also be paired with astronomers

63
00:01:53,833 --> 00:01:55,167

who view the heavens through