1
00:00:00,910 --> 00:00:03,450
Narrator: Historically, October has been a big

2
00:00:03,450 --> 00:00:05,730
month for supersonic flight.

3
00:00:05,730 --> 00:00:07,720
Chuck Yeager broke the sound barrier in

4
00:00:07,720 --> 00:00:12,310
an aircraft on October 14, 1947.

5
00:00:12,310 --> 00:00:14,790
The Concorde made its final passenger flight

6
00:00:14,790 --> 00:00:18,320
on October 24, 2003.

7
00:00:18,320 --> 00:00:21,540
Now, NASA is developing a prototype of an aircraft

8
00:00:21,540 --> 00:00:23,320
that could bring supersonic flight

9
00:00:23,320 --> 00:00:25,880
back to the traveling public.

10
00:00:25,880 --> 00:00:28,150
The aircraft is called the Low-Boom Flight

11
00:00:28,150 --> 00:00:30,750
Demonstrator and is slated for a series

12
00:00:30,750 --> 00:00:33,860
of test flights in the early 2020's.

13
00:00:33,860 --> 00:00:36,060

Don Durston: The major challenge facing NASA

14
00:00:36,060 --> 00:00:39,070
and the US aerospace industry for designing future

15
00:00:39,070 --> 00:00:41,870
supersonic transport is the loudness

16
00:00:41,870 --> 00:00:43,530
of the sonic boom.

17
00:00:43,530 --> 00:00:45,910
We need to get that boom away from that sharp

18
00:00:45,910 --> 00:00:48,370
"boom, boom" and get it down to more like a

19
00:00:48,370 --> 00:00:50,740
"thump, thump" and maybe even a "whoosh, whoosh"

20
00:00:50,740 --> 00:00:56,020
sound, where it might sound like a distant rumble.

21
00:00:56,020 --> 00:00:57,940
If it's not nearly as bothersome, then we've

22
00:00:57,940 --> 00:01:01,310
achieved our goal of reducing the boom so that

23
00:01:01,310 --> 00:01:05,290
it's not bothersome to the public.

24
00:01:05,290 --> 00:01:06,850
Narrator: Many of the studies to reduce the

25
00:01:06,850 --> 00:01:09,830
intensity of the sonic boom were conducted in the

26
00:01:09,830 --> 00:01:13,060
wind tunnels at NASA's Ames Research Center.

27
00:01:13,060 --> 00:01:15,890
Ames has long legacy of researching how to design

28
00:01:15,890 --> 00:01:19,500
aircraft to fly at supersonic speeds.

29
00:01:19,500 --> 00:01:21,770
Researchers made several key breakthroughs in

30
00:01:21,770 --> 00:01:25,100
supersonic aerodynamics beginning in the 1940's

31
00:01:25,100 --> 00:01:27,410
using unique high-speed wind tunnels,

32
00:01:27,410 --> 00:01:29,940
experimental flight testing and later on,

33
00:01:29,940 --> 00:01:32,620
advanced computer simulations.

34
00:01:32,620 --> 00:01:34,520
One of the greatest results to come from this

35
00:01:34,520 --> 00:01:37,410
research was the blunt body design that made it

36
00:01:37,410 --> 00:01:39,810
possible to safely return astronauts

37
00:01:39,810 --> 00:01:42,190
back from space.

38
00:01:42,190 --> 00:01:45,600

Perhaps someday in a future October, a commercial

39
00:01:45,600 --> 00:01:48,360
supersonic airplane based on the Low-Boom