



1
00:00:05,910 --> 00:00:02,950
a nasa dryden air force research

2
00:00:08,150 --> 00:00:05,920
laboratory and boeing phantom works team

3
00:00:11,910 --> 00:00:08,160
has finished its first phase of flight

4
00:00:14,230 --> 00:00:11,920
tests on the subscale x-48b blended wing

5
00:00:16,390 --> 00:00:14,240
body aircraft at the dryden flight

6
00:00:18,310 --> 00:00:16,400
research center

7
00:00:20,790 --> 00:00:18,320
the team is studying the structural

8
00:00:23,910 --> 00:00:20,800
aerodynamic and operational advantages

9
00:00:25,990 --> 00:00:23,920
of the blended wing body concept a cross

10
00:00:28,390 --> 00:00:26,000
between a conventional plane and a

11
00:00:30,710 --> 00:00:28,400
flying wing design the flight was

12
00:00:31,910 --> 00:00:30,720
structured into three major objectives

13
00:00:33,590 --> 00:00:31,920

the first one was what we called

14

00:00:35,350 --> 00:00:33,600

envelope expansion

15

00:00:37,750 --> 00:00:35,360

and in those flights what we were

16

00:00:39,990 --> 00:00:37,760

looking for was to just understand in

17

00:00:42,069 --> 00:00:40,000

general how the plane behaved

18

00:00:44,150 --> 00:00:42,079

during standard maneuvers like takeoff

19

00:00:46,630 --> 00:00:44,160

and landing the second objective was

20

00:00:48,229 --> 00:00:46,640

what we call the characterization phase

21

00:00:50,549 --> 00:00:48,239

in which we undertook a variety of

22

00:00:52,470 --> 00:00:50,559

maneuvers that looked at for example

23

00:00:54,709 --> 00:00:52,480

stall characteristics the third

24

00:00:58,069 --> 00:00:54,719

objective was finally what we call

25

00:01:00,389 --> 00:00:58,079

limiter assaults and the goal there is

26

00:01:02,869 --> 00:01:00,399

to ensure that even if the pilot under

27

00:01:04,469 --> 00:01:02,879

the worst case condition would try to

28

00:01:05,990 --> 00:01:04,479

put the aircraft

29

00:01:08,710 --> 00:01:06,000

into a condition

30

00:01:09,990 --> 00:01:08,720

that could cause it to stall or spin or

31

00:01:12,390 --> 00:01:10,000

something like that

32

00:01:14,630 --> 00:01:12,400

the internal software prevents the pilot

33

00:01:17,030 --> 00:01:14,640

from doing that the remotely piloted

34

00:01:19,670 --> 00:01:17,040

500-pound airplane has a silhouette

35

00:01:22,310 --> 00:01:19,680

resembling a manta ray also called a

36

00:01:25,109 --> 00:01:22,320

hybrid wing body and is dynamically

37

00:01:28,710 --> 00:01:25,119

scaled to fly much like a full-size

38

00:01:31,590 --> 00:01:28,720

aircraft x-48b is a component of nasa's

39

00:01:33,910 --> 00:01:31,600

work to develop cleaner quieter and more

40

00:01:36,550 --> 00:01:33,920

fuel-efficient airplanes for the future

41

00:01:38,310 --> 00:01:36,560

it is at least probably 30 percent more

42

00:01:40,630 --> 00:01:38,320

efficient than a conventional tube and

43

00:01:43,030 --> 00:01:40,640

wing aircraft the team completed the

44

00:01:46,310 --> 00:01:43,040

80th and last flight of the project's

45

00:01:48,789 --> 00:01:46,320

first phase on march 19 2010. the next