

MICHAEL STAROBIN

INSIDE NASA'S DC-8, OVER ANTARCTICA



1
00:00:00,120 --> 00:00:04,170

[music]

2
00:00:04,190 --> 00:00:08,270

At the beginning of the 21st Century, a growing

3
00:00:08,290 --> 00:00:12,280

scientific sensitivity to changes in Earth's climate motivated

4
00:00:12,300 --> 00:00:16,370

several ambitious research initiatives. Among other projects,

5
00:00:16,390 --> 00:00:20,460

NASA launched a satellite called ICESat, principally designed to

6
00:00:20,480 --> 00:00:24,510

measure changes in ice volume at the planet's poles. But like all things

7
00:00:24,530 --> 00:00:28,690

ICESat didn't last forever. That's why NASA is working on a

8
00:00:28,710 --> 00:00:32,760

second generation of ICESat, designed not only to pick up where the first one

9
00:00:32,780 --> 00:00:36,840

left off, but advance the quality and quantity of data with more

10
00:00:36,860 --> 00:00:40,860

contemporary technology. But while waiting for the new spacecraft to blast off

11
00:00:40,880 --> 00:00:44,970

researchers were concerned they'd miss vital information about

12
00:00:44,990 --> 00:00:49,020

changing ice. That's why NASA initiated Operation IceBridge

13
00:00:49,040 --> 00:00:53,160

And that's how we find ourself here

14

00:00:53,180 --> 00:00:57,260

in a one-of-a-kind flying laboratory a thousand feet above the

15

00:00:57,280 --> 00:01:01,350

surface of Antarctica. IceBridge is a multi-year mission to collect data from

16

00:01:01,370 --> 00:01:05,430

the northern and southern icecaps. Using aircraft to fly

17

00:01:05,450 --> 00:01:09,430

over regions measured by the original ICESat, experts are making new

18

00:01:09,450 --> 00:01:13,450

measurements bridging the gap between ICESat and ICESat-2

19

00:01:13,470 --> 00:01:17,500

That way, scientists will have an accurate and above-all

20

00:01:17,520 --> 00:01:21,670

consistent record of exactly how Earth's ice inventory

21

00:01:21,690 --> 00:01:25,710

is changing over time. And knowing that is a major step in