1
00:00:08,240 --> 00:00:04,150
[music]

2
00:00:08,260 --> 00:00:12,420
[aircraft noise]

3
00:00:12,440 --> 00:00:16,600
The Jakobshavn Glacier on the west coast of Greenland. It’s a familiar destination,

4
00:00:16,620 --> 00:00:20,700
but it certainly looks different every year. Yesterday Operation IceBridge

5
00:00:20,720 --> 00:00:24,800
returned to the glacier for the first time in 2013, repeating

6
00:00:24,820 --> 00:00:28,820
a high priority mission they’ve now flown for five consecutive years, and

7
00:00:28,840 --> 00:00:32,940
and collected another trove of valuable data and some great images.

8
00:00:32,960 --> 00:00:37,020
What’s so special about Jakobshavn that keeps IceBridge and other researchers coming back?

9
00:00:37,040 --> 00:00:41,090
Well, it’s one of the fastest moving glaciers in Greenland,

10
00:00:41,110 --> 00:00:45,170
it produces more icebergs than any other northern glacier,

11
00:00:45,190 --> 00:00:49,200
and over the past 150 years it’s been retreating dramatically.

12
00:00:49,220 --> 00:00:53,380
Studying how glaciers like Jakobshavn are changing from year-to-year

13
00:00:53,400 --> 00:00:57,430

helps scientists get a handle on both the movement of the ice on a local scale,

14
00:00:57,450 --> 00:01:01,600
and ultimately how much these glaciers might contribute to sea level rise.

15
00:01:01,620 --> 00:01:05,760
While studying the upstream catchment area of the glacier

16
00:01:05,780 --> 00:01:09,900
– kind of like the drainage basin of a river – was the primary objective

17
00:01:09,920 --> 00:01:14,060
on yesterday’s flight, making a pass over the calving front of the glacier is always

18
00:01:14,080 --> 00:01:18,240
a highlight of the mission, as we can see from this video taken last year.

19
00:01:18,260 --> 00:01:22,330
Here we see two views

20
00:01:22,350 --> 00:01:26,480
of the calving front from this year… with laser elevation data above …

21
00:01:26,500 --> 00:01:30,640
and high-resolution photographic data below. And here’s a closer

22
00:01:30,660 --> 00:01:34,730
look at just how detailed that imagery is.

23
00:01:34,750 --> 00:01:38,790
IceBridge plans to be back in Jakobshavn next year.

24
00:01:38,810 --> 00:01:42,860
Past, present and future IceBridge flights over regions like this one

25
00:01:42,880 --> 00:01:46,900
are aimed at building a continuous record of change in Earth's

26
00:01:46,920 --> 00:01:51,080
polar regions to bridge the gap between NASA's ICESat satellite