



1
00:00:00,020 --> 00:00:04,140
This year five teachers were invited

2
00:00:04,160 --> 00:00:08,240
on board NASA's P-3B aircraft to fly at 500 meters

3
00:00:08,260 --> 00:00:12,270
above the glaciers of Greenland with Operation IceBridge, a six-year mission

4
00:00:12,290 --> 00:00:16,450
to study Arctic and Antarctic ice.

5
00:00:16,470 --> 00:00:20,640
Two teachers from Greenland, two from Denmark, and one from the U.S.

6
00:00:20,660 --> 00:00:24,660
were given the opportunity to see polar research first hand,

7
00:00:24,680 --> 00:00:28,850
and then take that experience back to their classrooms.

8
00:00:28,870 --> 00:00:33,030
First impressions ... you know, of course the views.

9
00:00:33,050 --> 00:00:37,130
Just every where you looked

10
00:00:37,150 --> 00:00:41,150
just these spectacular views. Terrain that is

11
00:00:41,170 --> 00:00:45,260
very foreign. You know, I grew up in northwestern Pennsylvania

12
00:00:45,280 --> 00:00:49,350
and of course I've seen snow before, but never the glacial terrain

13
00:00:49,370 --> 00:00:53,570

that you see on one of these flights.

14

00:00:53,590 --> 00:00:57,650

Peter Gross: Being on an IceBridge flight, first you get

15

00:00:57,670 --> 00:01:01,820

the surprise that you're allowed to do a lot of things. You're allow to go around

16

00:01:01,840 --> 00:01:06,000

and look at all the researchers' work,

17

00:01:06,020 --> 00:01:10,190

we're allowed to talk to them. We're even allowed to go out in the cockpit

18

00:01:10,210 --> 00:01:14,230

as long as we don't bother anyone too much. That's the biggest surprise.

19

00:01:14,250 --> 00:01:18,390

Offscreen: How was takeoff?

20

00:01:18,410 --> 00:01:22,490

This is about the most exciting thing

21

00:01:22,510 --> 00:01:26,610

I've done for a long time.

22

00:01:26,630 --> 00:01:30,710

The next one is that it's a bit tough. You need to be able to

23

00:01:30,730 --> 00:01:34,800

grab on to something when you come into the air holes

24

00:01:34,820 --> 00:01:38,910

you need to be prepared for some turbulence and for a bit of air sickness if

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00:01:38,930 --> 00:01:43,010

you're not too strong. And you have to eat

26
00:01:43,030 --> 00:01:47,150
and you have to drink a lot because, eight, nine hours

27
00:01:47,170 --> 00:01:51,220
on a flight is a long time

28
00:01:51,240 --> 00:01:55,330
Erik Jakobsen: You might say it's

29
00:01:55,350 --> 00:01:59,400
incredible experience to see the ice from

30
00:01:59,420 --> 00:02:03,420
above and the mountains and

31
00:02:03,440 --> 00:02:07,460
flying with these incredible pilots, going very low over the

32
00:02:07,480 --> 00:02:11,600
glaciers, going very close to the mountains, so

33
00:02:11,620 --> 00:02:15,640
that has been a fantastic experience to see how

34
00:02:15,660 --> 00:02:19,650
such professional people can do their work.

35
00:02:19,670 --> 00:02:23,810
And talking to the scientists, and feeling

36
00:02:23,830 --> 00:02:27,940
their enthusiasm toward these subjects

37
00:02:27,960 --> 00:02:32,000
Tom Svennesen: I don't know what I really thought

38
00:02:32,020 --> 00:02:36,030

would be there. But when you see it, there's actually nothing.

39

00:02:36,050 --> 00:02:40,130

It's like a completely white desert.

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00:02:40,150 --> 00:02:44,150

You can see there's nothing. No life, no tree,

41

00:02:44,170 --> 00:02:48,230

no animal. Nothing. Just flat ice.

42

00:02:48,250 --> 00:02:52,310

But then when you get to the edges, it gets much more interesting.

43

00:02:52,330 --> 00:02:56,350

You have mountains and you have the crevasses.

44

00:02:56,370 --> 00:03:00,380

I think for me the crevasses was the defining moment.

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00:03:00,400 --> 00:03:04,500

When you are looking down into the crevasses and

46

00:03:04,520 --> 00:03:08,650

you're imagining how would it be if I was down there,

47

00:03:08,670 --> 00:03:12,700

walking with a backpack, maybe a ski

48

00:03:12,720 --> 00:03:16,740

could I manage, could I pass there?

49

00:03:16,760 --> 00:03:20,840

Narrator: The teachers took advantage of a day on the ground

50

00:03:20,860 --> 00:03:24,890

to travel to the terminus of the Russell Glacier,

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00:03:24,910 --> 00:03:28,910

where they were able to touch the ancient ice and sample the glacier's meltwater.

52

00:03:28,930 --> 00:03:33,000

[music]

53

00:03:33,020 --> 00:03:37,040

While they stayed back a safe distance from the glacier's calving front,

54

00:03:37,060 --> 00:03:41,140

two hikers from a different group provided a sense of scale as they got

55

00:03:41,160 --> 00:03:45,210

dangerously close to the wall of ice.

56

00:03:45,230 --> 00:03:49,390

[music]

57

00:03:49,410 --> 00:03:53,490

Tim Spuck: You know I've spent 20, 22

58

00:03:53,510 --> 00:03:57,540

years teaching about glaciers and teaching Earth science

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00:03:57,560 --> 00:04:01,570

classes where we've talked about erosion and weathering

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00:04:01,590 --> 00:04:05,690

due to glaciation. But I've never seen it.

61

00:04:05,710 --> 00:04:09,760

Until today. Until the flight.

62

00:04:09,780 --> 00:04:13,790

And I think that makes you a better teacher, a better communicator

63

00:04:13,810 --> 00:04:17,930

of the science

64

00:04:17,950 --> 00:04:22,010

Narrator: Peter Gross has already shared his experiences with his

65

00:04:22,030 --> 00:04:26,100

students back in Denmark, and plans to incorporate scientific concepts