1
00:00:00,010 --> 00:00:04,030
[music] It's been two years since Operation IceBridge has flown

2
00:00:04,050 --> 00:00:08,100
over the West Antarctic Ice Sheet – one of the fastest-melting

3
00:00:08,120 --> 00:00:12,160
large masses of ice on the planet.

4
00:00:12,180 --> 00:00:16,170
Back then, the mission was based out of Punta Arenas, Chile, a great location if you

5
00:00:16,190 --> 00:00:20,190
want to hit the West Antarctic and other science targets near the Antarctic Peninsula.

6
00:00:20,210 --> 00:00:24,230
But for the first time last fall, the mission moved its

7
00:00:24,250 --> 00:00:28,250
field site to the even more remote McMurdo Station, where they

8
00:00:28,270 --> 00:00:32,310
completed the most-comprehensive long-range surveys ever performed of

9
00:00:32,330 --> 00:00:36,340
several areas. For many on the team, it was a new experience

10
00:00:36,360 --> 00:00:40,360
to actually touch down in Antarctica, and see firsthand

11
00:00:40,380 --> 00:00:44,370
things like Weddell seals basking in the sun, gigantic pressure ridges

12
00:00:44,390 --> 00:00:48,410
of sea ice formed by the ice pushing against the coast

13
00:00:48,430 --> 00:00:52,430

the volcanic Mount Erebus, and Scotts cabin

14
00:00:52,450 --> 00:00:56,540
with 100-year old seal flippers mummified by the dry Antarctic air.

15
00:00:56,560 --> 00:01:00,580
But front and center on the teams' mind

16
00:01:00,600 --> 00:01:04,630
was the new complexity of this year's challenge. There were new weather patterns

17
00:01:04,650 --> 00:01:08,670
to decipher, new training exercises to prepare the pilots for landing

18
00:01:08,690 --> 00:01:12,730
on a floating sea ice runway, and a host of new regulations for operating

19
00:01:12,750 --> 00:01:16,750
out of McMurdo. Adding to the challenge: a runway

20
00:01:16,770 --> 00:01:20,780
wasstarting to melt away as summer approached.

21
00:01:20,800 --> 00:01:24,800
Even with these challenges and a shortened schedule, the team was able to measure

22
00:01:24,820 --> 00:01:28,810
the sea ice of the Ross Sea, along with land ice

23
00:01:28,830 --> 00:01:32,850
the Siple Coast, the Dome C / Lake Vostok region,

24
00:01:32,870 --> 00:01:36,910
along the Trans Antarctic Mountains, and over Victoria Land.

25
00:01:36,930 --> 00:01:40,920
IceBridge demonstrated it could operate out of this new region and plans to go back

26
00:01:40,940 --> 00:01:45,000
in 2015. But the network of NASA, university,

27
00:01:45,020 --> 00:01:49,020
and international partners who use IceBridge data also

28
00:01:49,040 --> 00:01:53,070
want to see how things have changed in the Antarctic Peninsula, on the Ronne Ice Shelf,

29
00:01:53,090 --> 00:01:57,130
and in the West Antarctic Ice Sheet, so they're returning

30
00:01:57,150 --> 00:02:01,150
to operation out of Punta Arenas, Chile once again this year.