



1  
00:00:08,230 --> 00:00:04,050  
[drum beats]

2  
00:00:08,250 --> 00:00:12,340  
[drum beats slower]

3  
00:00:33,200 --> 00:00:16,670  
[music]

4  
00:00:33,220 --> 00:00:37,440  
It was a bold plan.

5  
00:00:37,460 --> 00:00:41,670  
NASA's Operation IceBridge

6  
00:00:41,690 --> 00:00:45,720  
would bring its P-3 aircraft down to Antarctica,

7  
00:00:45,740 --> 00:00:49,880  
land at the sea ice runway at McMurdo Station, and use that

8  
00:00:49,900 --> 00:00:53,930  
that temporary, 8-foot-thick sheet of ice as a base station

9  
00:00:53,950 --> 00:00:58,020  
to travel to remote areas of the continent, including some that had never

10  
00:00:58,040 --> 00:01:02,170  
before been surveyed from the air in such detail.

11  
00:01:02,190 --> 00:01:06,190  
A lot of pieces had to be put in place for this to happen.

12  
00:01:06,210 --> 00:01:10,230  
It took 18 months to plan the mission, including mapping and prioritizing

13  
00:01:10,250 --> 00:01:14,370

each potential science flight, providing specialized training

14

00:01:14,390 --> 00:01:18,540

for the flight crew, and getting the P-3 ready to operate far from home

15

00:01:18,560 --> 00:01:22,590

and without the luxury of a dedicated hangar. It also took careful

16

00:01:22,610 --> 00:01:26,620

coordination with the National Science Foundation, which operates McMurdo,

17

00:01:26,640 --> 00:01:30,680

to ensure the mission would have adequate support on the ice and

18

00:01:30,700 --> 00:01:34,720

would adhere to strict Antarctic environmental and wildlife protections.

19

00:01:34,740 --> 00:01:38,900

After installing IceBridge's nine science instruments, the team then flew

20

00:01:38,920 --> 00:01:42,940

to the U.S. Antarctic Program's hub in Christchurch, New Zealand,

21

00:01:42,960 --> 00:01:46,970

where they were issued NSF polar gear and got safety training.

22

00:01:46,990 --> 00:01:51,030

After a one day weather delay – always a possibility when traveling south –

23

00:01:51,050 --> 00:01:55,200

– the team boarded a U.S. Air Force C-17 aircraft

24

00:01:55,220 --> 00:01:59,290

for their flight to Antarctica. After landing on the ice,

25

00:01:59,310 --> 00:02:03,370

the team then had to unload cargo, set up GPS

26

00:02:03,390 --> 00:02:07,470

ground stations, go through more training, scout the runway,

27

00:02:07,490 --> 00:02:11,640

and make sure their instruments were ready to fly.

28

00:02:11,660 --> 00:02:15,680

Meanwhile, the P-3 and its flight crew made their five-day

29

00:02:15,700 --> 00:02:19,740

journey from NASA's Wallops Flight Facility in Virginia, across the United States,

30

00:02:19,760 --> 00:02:23,790

and then over the South Pacific toward McMurdo.

31

00:02:23,810 --> 00:02:27,900

On November 16th, 2013, a clear sunny day,

32

00:02:27,920 --> 00:02:32,040

the NASA P-3 made its first

33

00:02:32,060 --> 00:02:36,080

approach to the sea ice runway, and executed a beautiful landing