

map of the  
shed after  
(1610)



1800



The Fram  
(1878)

1900



Roald  
Amundsen  
(1906)

2000

1  
00:00:00,190 --> 00:00:04,200  
[waves crashing against a ship]

2  
00:00:04,220 --> 00:00:08,370  
[waves and wind]

3  
00:00:08,390 --> 00:00:12,470  
Narrator: Humans have been living alongside, migrating over,

4  
00:00:12,490 --> 00:00:16,640  
frustrated by, and depending on Arctic sea ice

5  
00:00:16,660 --> 00:00:20,670  
for thousands of years. But it was not until after we had landed

6  
00:00:20,690 --> 00:00:24,860  
on the moon, six times, that we had a reliable picture of just how much ice

7  
00:00:24,880 --> 00:00:28,930  
there was and how much it changed from season to season,

8  
00:00:28,950 --> 00:00:33,130  
and year to year.

9  
00:00:33,150 --> 00:00:37,300  
Perhaps the first scientific account we have of sea ice is from the Greek explorer Pytheas of Massalia,

10  
00:00:37,320 --> 00:00:41,440  
who sailed north around England and reported reaching a frozen ocean and

11  
00:00:41,460 --> 00:00:45,640  
long summer days when the sun never set. Pre-Inuit people

12  
00:00:45,660 --> 00:00:49,770  
lived and migrated on the ice, and Vikings kept records of sea ice

13  
00:00:49,790 --> 00:00:53,960

observations as they explored and settled new lands.

14

00:00:53,980 --> 00:00:58,140

Since then, many Scandinavian and Russian Pomor peoples have lived with sea ice,

15

00:00:58,160 --> 00:01:02,290

and Inuit culture has been intimately tied to the ice for a thousand years.

16

00:01:02,310 --> 00:01:06,370

In the Great Age of Exploration, seafarers

17

00:01:06,390 --> 00:01:10,540

like Corte-Real and Frobisher experienced or were thwarted by sea ice

18

00:01:10,560 --> 00:01:14,590

as they searched for new passages across the North and riches to exploit.

19

00:01:14,610 --> 00:01:18,720

And mapmakers like Mercator gave the sea ice pack its first rough outline.

20

00:01:18,740 --> 00:01:22,820

In the 1700s Mikhail Lomonosov

21

00:01:22,840 --> 00:01:27,010

distilled centuries of Russian seafarer's observations into a

22

00:01:27,030 --> 00:01:31,180

groundbreaking analysis of the Arctic. More than a hundred years later,

23

00:01:31,200 --> 00:01:35,250

Fridtjof Nansen intentionally froze his ship into the ice

24

00:01:35,270 --> 00:01:39,310

and drifted for three years, confirming large-scale circulation

25

00:01:39,330 --> 00:01:43,490

of sea ice. In 1878,

26

00:01:43,510 --> 00:01:47,520

Adolf Erik Nordenskiöld led the Vega expedition through the Northeast

27

00:01:47,540 --> 00:01:51,550

Passage and in 1906 Roald Amundsen made the first

28

00:01:51,570 --> 00:01:55,720

transit of Northwest Passage, sneaking through the icepack in his ship

29

00:01:55,740 --> 00:01:59,900

the Gjøa. In 1926, two days

30

00:01:59,920 --> 00:02:03,940

after Richard Evelyn Byrd attempted the Pole in a small aircraft,

31

00:02:03,960 --> 00:02:07,970

the airship Norge carried Amundsen and his crew from Norway over the

32

00:02:07,990 --> 00:02:12,090

Pole to Alaska.

33

00:02:12,110 --> 00:02:16,110

Soon after, a slew of scientific research camps migrated on the shifting ice,

34

00:02:16,130 --> 00:02:20,170

including 88 Soviet stations logging more than 100,000

35

00:02:20,190 --> 00:02:24,340

total miles of drift, and the famous American T-3 camp

36

00:02:24,360 --> 00:02:28,510

on Fletcher's ice island, which was maintained for 20 years.

37

00:02:28,530 --> 00:02:32,640

And in 1958 the USS Nautilus traveled under

38

00:02:32,660 --> 00:02:36,700

the North Pole and the entire ice cap, beginning a new era

39

00:02:36,720 --> 00:02:40,870

of submarine mapping of the rugged underside of the ice.

40

00:02:40,890 --> 00:02:44,960

Murrow: This is Ed Murrow. And this the canopy of ice that covers

41

00:02:44,980 --> 00:02:49,030

the Arctic Ocean. The frozen barrier that throughout history

42

00:02:49,050 --> 00:02:53,060

has barred shipping from a body of water five times the size of the Mediterranean sea.

43

00:02:53,080 --> 00:02:57,180

Only once, shortly

44

00:02:57,200 --> 00:03:01,250

after the turn of the century, has Man reached the North Pole by a surface route.

45

00:03:01,270 --> 00:03:05,300

No ship has ever

46

00:03:05,320 --> 00:03:09,330

reached the pole. Even the most powerful icebreakers are helpless against

47

00:03:09,350 --> 00:03:13,430

this frozen barrier. [crashing into ice]