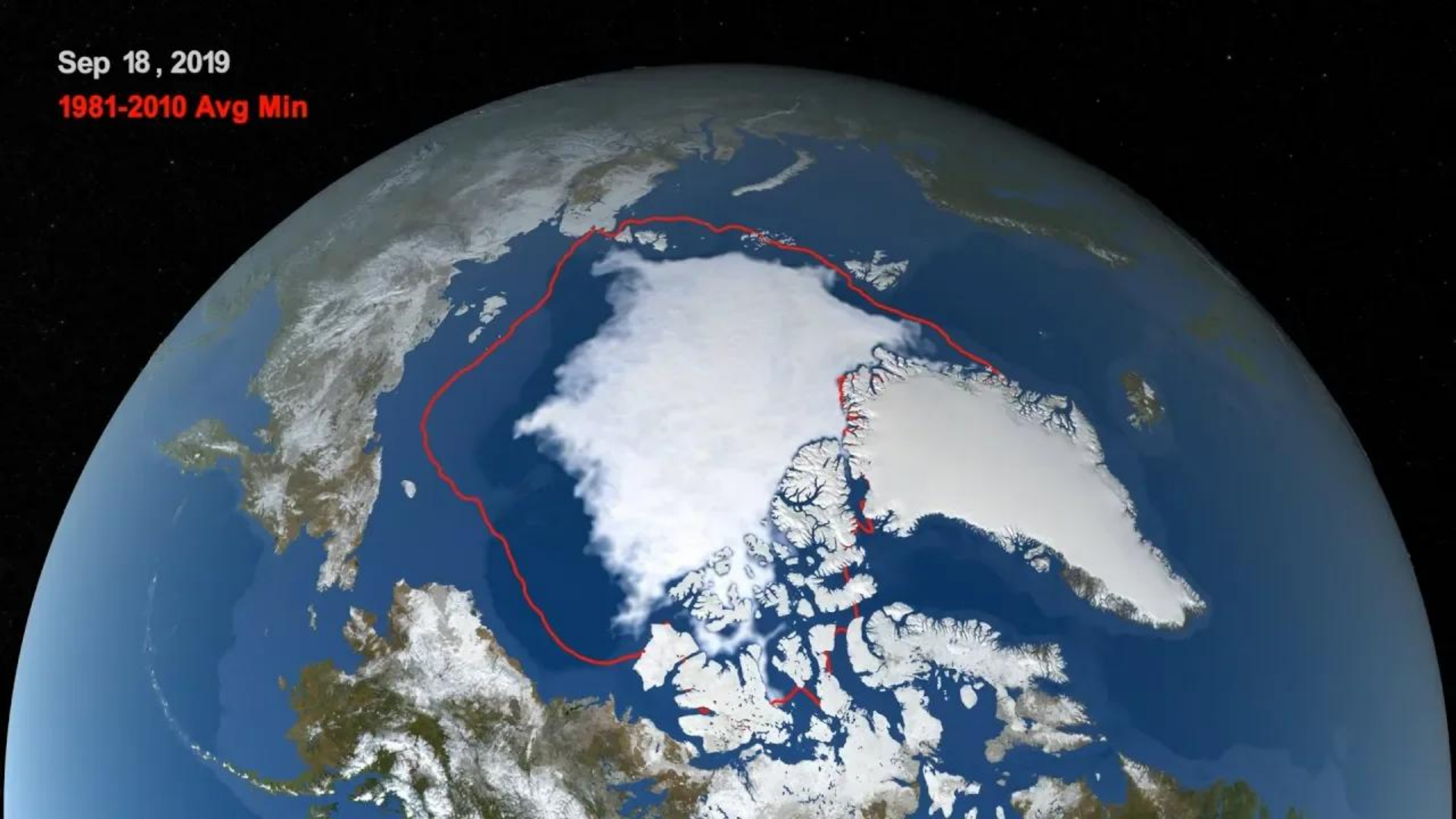
Sep 18 , 2019
1981-2010 Avg Min

1
00:00:07,030 --> 00:00:04,789
on september 18th

2
00:00:09,910 --> 00:00:07,040
satellites observed that arctic sea ice

3
00:00:11,910 --> 00:00:09,920
had reached its annual low

4
00:00:14,070 --> 00:00:11,920
this year's sea ice minimum is

5
00:00:15,749 --> 00:00:14,080
effectively tied for the second lowest

6
00:00:17,910 --> 00:00:15,759
on record

7
00:00:19,189 --> 00:00:17,920
and while sea ice grows and shrinks with

8
00:00:22,390 --> 00:00:19,199
the seasons

9
00:00:26,790 --> 00:00:22,400
2019 continues the downward trend of the

10
00:00:30,230 --> 00:00:27,990
the trends that we've been seeing with

11
00:00:33,030 --> 00:00:30,240
the sea ice minimum have just been a

12
00:00:35,350 --> 00:00:33,040
decrease so in the 70s since the modern

13
00:00:36,470 --> 00:00:35,360

record began tracking

14
00:00:38,150 --> 00:00:36,480
to today

15
00:00:40,229 --> 00:00:38,160
there's there's variation from year to

16
00:00:41,430 --> 00:00:40,239
year but it's really just a downward

17
00:00:43,510 --> 00:00:41,440
trend

18
00:00:46,389 --> 00:00:43,520
satellite observations show that arctic

19
00:00:49,670 --> 00:00:46,399
sea ice is not only shrinking in extent

20
00:00:52,069 --> 00:00:49,680
it is also becoming younger and thinner

21
00:00:54,470 --> 00:00:52,079
that means less and less ice survives

22
00:00:56,150 --> 00:00:54,480
the annual melt the the arctic is

23
00:00:57,670 --> 00:00:56,160
actually warmed a lot more than the

24
00:00:59,830 --> 00:00:57,680
globe as a whole there's a something

25
00:01:00,709 --> 00:00:59,840
called arctic amplification which means

26
00:01:02,310 --> 00:01:00,719
that

27
00:01:03,910 --> 00:01:02,320
the the temperatures in the arctic have

28
00:01:05,590 --> 00:01:03,920
warmed about two to three times the

29
00:01:07,750 --> 00:01:05,600
global average

30
00:01:10,550 --> 00:01:07,760
a major cause of this warming is due to

31
00:01:13,830 --> 00:01:10,560
the loss of reflectivity or albedo of

32
00:01:16,469 --> 00:01:13,840
the sea ice snow-covered sea ice has a

33
00:01:19,270 --> 00:01:16,479
high albedo this keeps the sun's energy

34
00:01:21,910 --> 00:01:19,280
from being absorbed by a dark ocean

35
00:01:24,390 --> 00:01:21,920
but when sea ice begins to melt it loses

36
00:01:26,870 --> 00:01:24,400
some of that reflectivity

37
00:01:30,149 --> 00:01:26,880
and without the sea ice cover the ocean

38
00:01:32,710 --> 00:01:30,159

will absorb most of the sun's energy

39
00:01:34,630 --> 00:01:32,720
this creates a feedback loop that leads

40
00:01:36,390 --> 00:01:34,640
to more melting and warming in the

41
00:01:38,710 --> 00:01:36,400
arctic

42
00:01:40,390 --> 00:01:38,720
we care about sea ice for a variety of

43
00:01:42,310 --> 00:01:40,400
reasons one being

44
00:01:44,389 --> 00:01:42,320
because it does have an impact on things

45
00:01:46,389 --> 00:01:44,399
like our weather and our climate because

46
00:01:48,469 --> 00:01:46,399
of the albedo effect if you decrease the

47
00:01:50,710 --> 00:01:48,479
amount of arctic sea ice

48
00:01:52,310 --> 00:01:50,720
you start warming up the arctic and when

49
00:01:54,469 --> 00:01:52,320
you start warming up the arctic you can

50
00:01:57,030 --> 00:01:54,479
start changing the circulation of the

51
00:02:00,069 --> 00:01:57,040
the jet stream which brings weather to

52
00:02:02,310 --> 00:02:00,079
us here in the mid-latitudes the other

53
00:02:05,350 --> 00:02:02,320
other reasons why we care about

54
00:02:07,109 --> 00:02:05,360
sea ice arctic sea ice in particular is

55
00:02:09,749 --> 00:02:07,119
because we've seen such big changes due

56
00:02:12,070 --> 00:02:09,759
to warming melting ice it's a

57
00:02:15,430 --> 00:02:12,080
good visual to show that yes the climate

58
00:02:17,589 --> 00:02:15,440
is changing and it's because of warming

59
00:02:19,670 --> 00:02:17,599
nasa continues to monitor these changes

60
00:02:21,350 --> 00:02:19,680
to the arctic so that we may get a