1
00:00:02,690 --> 00:00:07,400
The Arctic and the Antarctic play the role of, kind of like an air conditioner for the Earth system

2
00:00:07,420 --> 00:00:09,480
So they're cold, they have a lot of ice

3
00:00:09,970 --> 00:00:14,180
They reflect a lot of the solar energy, so they stay colder than they otherwise would

4
00:00:14,440 --> 00:00:16,480
They're more sensitive to climate change

5
00:00:16,780 --> 00:00:23,420
and therefore they're the regions that we see the biggest effects of climate change so far and the biggest effec

6
00:00:23,440 --> 00:00:27,110
They're kind of a canary in a coalmine of global warming

7
00:00:27,420 --> 00:00:29,910
This year's Arctic sea ice minimum is

8
00:00:29,930 --> 00:00:33,980
in about the top ten of the lowest that we've seen in the last three and a half decades

9
00:00:34,190 --> 00:00:36,370
As the global temperature has increased

10
00:00:36,390 --> 00:00:37,850
the temperatures in the Arctic

11
00:00:37,870 --> 00:00:39,140
especially in the past decade

12
00:00:39,160 --> 00:00:41,680
have increased by about two to three times the global average

13
00:00:42,490 --> 00:00:44,890

And so what's happening is as temperatures increase, ice melts

14
00:00:45,420 --> 00:00:50,100
This year in the Antarctic we've seen a pretty spectacular maximum extent

15
00:00:50,120 --> 00:00:53,180
The Antarctic sea ice has expanded beyond anything

16
00:00:53,200 --> 00:00:55,760
we've seen before and set a new record

17
00:00:56,250 --> 00:01:00,590
The increase that we're seeing in the Antarctic extent is a little bit of a mystery

18
00:01:01,420 --> 00:01:04,460
We're seeing overall temperatures warming around the globe

19
00:01:05,130 --> 00:01:07,380
So you would expect to see ice loss

20
00:01:07,900 --> 00:01:14,080
Some people have looked at the Antarctic increasing trend and used that to suggest that global warming isn't h

21
00:01:14,100 --> 00:01:18,910
or that the increase in the Antarctic gives offset in the decrease in the Arctic

22
00:01:18,930 --> 00:01:20,960
and that's simply not true.

23
00:01:20,980 --> 00:01:25,320
If you look at simply the magnitudes in the changes we're seeing in the winter time

24
00:01:25,340 --> 00:01:30,020
the Arctic is decreasing about twice as fast as what the Antarctic is increasing

25
00:01:30,550 --> 00:01:33,700
It's important to look at the relationship between the Arctic and Antarctic