1
00:00:08,390 --> 00:00:05,110
on august 5th an enormous chunk of ice

2
00:00:10,629 --> 00:00:08,400
roughly 97 square miles in size broke

3
00:00:13,030 --> 00:00:10,639
off the petermann glacier along the

4
00:00:15,190 --> 00:00:13,040
northwestern coast of greenland

5
00:00:17,750 --> 00:00:15,200
the glacier lost about a quarter of its

6
00:00:20,150 --> 00:00:17,760
40-mile long floating ice shelf the

7
00:00:22,550 --> 00:00:20,160
largest in the northern hemisphere

8
00:00:25,109 --> 00:00:22,560
it's not unusual for large icebergs to

9
00:00:27,349 --> 00:00:25,119
cave off the petermann glacier but this

10
00:03:26,789 --> 00:00:27,359
new one is the largest to form in the

11
00:03:29,589 --> 00:03:28,550
so these changes are real and they're

12
00:03:31,589 --> 00:03:29,599
happening

13
00:03:33,509 --> 00:03:31,599

and what we're trying to do at nasa is

14
00:03:34,550 --> 00:03:33,519
like i say to go out and characterize

15
00:03:36,470 --> 00:03:34,560
this ice

16
00:03:38,070 --> 00:03:36,480
understand how it works how is it

17
00:03:40,309 --> 00:03:38,080
affected by ocean currents how is it

18
00:03:42,949 --> 00:03:40,319
affected by winds how is it affected by

19
00:03:44,309 --> 00:03:42,959
sunlight so that we can correlate that

20
00:03:46,630 --> 00:03:44,319
with the changes we see in the

21
00:03:48,550 --> 00:03:46,640
atmosphere and develop better predictive

22
00:03:50,309 --> 00:03:48,560
models now why should you care if you

23
00:03:51,990 --> 00:03:50,319
don't live in the arctic areas that's a

24
00:03:53,270 --> 00:03:52,000
really good question and the fact is

25
00:03:56,229 --> 00:03:53,280
this

26
00:03:58,229 --> 00:03:56,239
retreat the ice cover and you heat the

27
00:03:59,670 --> 00:03:58,239
ocean up with more sunlight you also

28
00:04:01,589 --> 00:03:59,680
have to think about there's going to be

29
00:04:03,270 --> 00:04:01,599
more water evaporating to the atmosphere

30
00:04:05,350 --> 00:04:03,280
there's a lot of other exchanges going

31
00:04:07,509 --> 00:04:05,360
on that's going to change the way that

32
00:04:10,070 --> 00:04:07,519
the earth's climate works and we expect

33
00:04:10,949 --> 00:04:10,080
weather patterns over north america to

34
00:04:13,190 --> 00:04:10,959
change

35
00:04:16,550 --> 00:04:13,200
now this stuff is very very difficult to

36
00:04:18,949 --> 00:04:16,560
model but the most recent model suggests

37
00:04:21,110 --> 00:04:18,959
is that if we lose the arctic ice hat we

38
00:04:22,950 --> 00:04:21,120

may have more drought in north america