

Atlantic Ocean circulatory current could collapse

28th October 2024



The system of ocean currents that is responsible for maintaining temperate weather worldwide is in danger of collapsing. Experts say the Atlantic Meridional Overturning Circulation (AMOC) could collapse within the next 50 years. AMOC brings heat

from Caribbean waters to the northern Atlantic Ocean between Greenland and Britain. Oceanographers say AMOC has been slowing down for the past few decades because of global warming. The northern Atlantic is the only region in the world that has cooled in the past 20 years. Experts once believed there was a 10 per cent chance of AMOC crossing the tipping point this century. However, 44 experts publicly stated that is now a 50/50 possibility.

Meteorologists believe AMOC could fail in the next few decades. They said this would lead to "devastating and irreversible impacts which will affect the entire world for centuries to come". It would disrupt global weather patterns and adversely affect the lives of hundreds of millions of people. The scientists predict that winter temperatures in the U.K. could become 15°C lower. Colder weather could "potentially threaten the viability of agriculture in northwestern Europe". The collapse of AMOC could shift tropical monsoons southwards, causing widespread drought and famine. This will create huge increases in the numbers of climate refugees and escalate geopolitical tensions.

Sources: theguardian.com / livescience.com / msn.com

Writing

We should start preparing for massive changes in weather patterns. Discuss.

Chat

Talk about these words from the article.

system / ocean / weather / danger / Atlantic Ocean / global warming / tipping point / meteorologists / impacts / centuries / scientists / agriculture / monsoons / refugees

True / False

- 1) A system of ocean currents has already collapsed. T / F
- 2) The AMOC system originates in the Caribbean. T / F
- 3) The southern Atlantic is the only region in the world that has cooled. T / F
- 4) Fifty experts say there is a 44/44 chance of reaching a tipping point. T / F
- 5) Meteorologists believe AMOC could fail this year. T / F
- 6) Meteorologists say the collapse of AMOC could affect the whole world. T / F
- 7) The U.K. could be 15°C cooler if the AMOC collapses. T / F
- 8) The collapse of the AMOC could lead to more famines and droughts. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|-----------------------|-----------------|
| 1. system | a. previously |
| 2. temperate | b. likelihood |
| 3. collapse | c. heighten |
| 4. once | d. catastrophic |
| 5. possibility | e. pleasant |
| 6. devastating | f. negatively |
| 7. entire | g. structure |
| 8. adversely | h. feasibility |
| 9. viability | i. whole |
| 10. escalate | j. cave in |

Discussion – Student A

- a) How worried are you about changing weather patterns?
- b) How has the weather changed in your country?
- c) What do you know about ocean currents?
- d) Do you prefer cooler or warmer weather?
- e) What do you think of global warming?
- f) What do you think an oceanographer does every day?
- g) What might happen if AMOC collapses?
- h) What will the weather be like in 100 years from now?

Phrase Match

- | | |
|--|-------------------------|
| 1. responsible for maintaining temperate | a. the past few decades |
| 2. AMOC has been slowing down for | b. possibility |
| 3. the only region in the world | c. monsoons |
| 4. a 10 per cent chance of AMOC crossing | d. irreversible impacts |
| 5. that is now a 50/50 | e. the tipping point |
| 6. this would lead to devastating and | f. of agriculture |
| 7. affect the entire world for centuries | g. weather worldwide |
| 8. potentially threaten the viability | h. tensions |
| 9. tropical | i. to come |
| 10. escalate geopolitical | j. that has cooled |

Discussion – Student B

- What do you think about what you read?
- How do oceans affect the weather?
- What 'devastating and irreversible impacts' might climate change bring?
- How would your life change if weather was 15°C cooler?
- How would you deal with drought and famine?
- Where will climate refugees go?
- What geopolitical tensions might climate change bring?
- What questions would you like to ask oceanographers?

Spelling

- meperttae weather
- in danger of lplaosicng
- briCbeaan waters
- anrcoeapgehors say AMOC has been slowing down
- ertspxe once believed there was
- crossing the tipping point this rcuneyt
- ertieoosoglmt believe AMOC could fail
- tdvtsiegnaa and irreversible impacts
- affect the etrnej world for centuries
- ydravlese affect the lives
- threaten the biyaiilty of agriculture
- causing widespread utdgohr and famine

Answers – Synonym Match

1. g	2. e	3. j	4. a	5. b
6. d	7. i	8. f	9. h	10. c

Role Play

Role A – Thick Fog

You think thick fog is the worst weather. Tell the others three reasons why. Tell them why their weather isn't as bad. Also, tell the others which is the worst of these (and why): heatwaves, heavy snow or torrential rain.

Role B – Heatwaves

You think heatwaves are the worst weather. Tell the others three reasons why. Tell them why their weather isn't as bad. Also, tell the others which is the worst of these (and why): thick fog, heavy snow or torrential rain.

Role C – Heavy Snow

You think heavy snow is the worst weather. Tell the others three reasons why. Tell them why their weather isn't as bad. Also, tell the others which is the worst of these (and why): heatwaves, thick fog or torrential rain.

Role D – Torrential Rain

You think torrential rain is the worst weather. Tell the others three reasons why. Tell them why their weather isn't as bad. Also, tell the others which is the worst of these (and why): heatwaves, heavy snow or thick fog.

Speaking – Weather

Rank these with your partner. Put the worst at the top. Change partners often and share your rankings.

- | | |
|-------------|-------------------|
| • Thick fog | • Thunderstorms |
| • Hail | • Damaging winds |
| • Heatwaves | • Heavy snow |
| • Tornados | • Torrential rain |

Answers – True False

1	F	2	T	3	F	4	F	5	F	6	T	7	T	8	T
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Answers to Phrase Match and Spelling are in the text.