At the heart of the Earth lies the everlasting movement of life in the form of a current, an ocean current. The Atlantic Meridional Overturning Circulation is just one current in the global matrix of ocean currents. The AMOC is the largest and most prominent current that regulates heat distribution vertically across the Atlantic Ocean. The AMOC creates a temperature gradient which contributes to the frigid north and warm south. The Atlantic Meridional Overturning Circulation is a complex system of heat regulation around the globe. There are many factors that contribute to Earth's climate, but the AMOC is the main transporter of heat in the oceanic conveyer belt.

The AMOC functions by looping the lateral densities of the cold saline waters. Northern hemispheric waters are colder, containing high densities of salt. This dense water sinks to the bottom of the ocean and moves in the current's southward direction. Upwelling allows for nutrient rich water to be brought to the surface. Nutrients from the bottom help feed various marine species. As the water travels along the surface, the temperature slowly increases. Warm water brings heat to western areas of the world. As the surface waters travel northward, they become cold. The fridged surface water turns downward towards the ocean floor. This system loops across the entire Atlantic Ocean.

However, studies have shown that the AMOC is reaching tipping points connected to its collapse. Large intakes of freshwater have upset the ratio of salinity in the ocean. This high influx of freshwater was caused by the melting of the Greenland ice sheets and excessive river runoff. The decrease in salinity levels affects the whole looping mechanism of the conveyor belt. This causes the cold northern water not to sink due to the diluted salinity. Out of all past events the AMOC has remained in a weaker state in the past 150 years than it has been in history. If this current continues to weaken or collapse, there will be global impacts on human health and infrastructure, weather patterns, and the food industry.