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The Earth warming has been accelerating for the past sixty years according to a new study led by Mercator Ocean International oceanographers

A recently released study led by Mercator Ocean International's Audrey Minière and Karina von Schuckmann provides compelling evidence that the Earth system has been cumulating heat at an increasingly faster pace since 1960. This accelerated warming is mostly captured by the Ocean, which is the most important heat reservoir of our planet. A significant milestone in climate science, this study sheds light on the rapid changes our planet is experiencing.

Among the key findings, the study unveils a previously uncharted acceleration in the warming of the Ocean since 1960, reaching a rate of 0.15 ± 0.05 (W/m²)/decade, leading to a difference of 0.91 ± 0.80 W/m² between the decades 1960–1970 and 2010–2020. In comparison, the land, cryosphere, and atmosphere have shown parallel acceleration, reaching a pace of 0.013 ± 0.003 (W/m²)/decade. The long-term acceleration in Earth's warming appears to correlate qualitatively with the human-induced rise of CO₂ concentrations and the decline in aerosol concentration during the same period. However, the researchers stress the need for further investigations to definitively attribute these changes, especially over the past two decades, where the warming acceleration has nearly doubled compared to the long-term period.

The acceleration in our planet's warming, particularly in the Ocean, points out the urgent need to understand the underlying physical drivers and impacts of these swift changes on the Earth's system.

To read the paper, please click on the following link:

[Robust acceleration of Earth system heating observed over the past six decades](#)

About Mercator Ocean International

Mercator Ocean International (MOi) is a non-profit organisation, in the process of becoming an intergovernmental organisation, committed to building a science based Digital Ocean for supporting the conservation and the sustainable use of our oceans and seas.

MOi delivers an operational digital description of marine environments worldwide and helps organisations implement community and institutional programmes, projects and initiatives. Mercator Ocean continuously builds interactions between scientists, policymakers, public and institutional decision-makers and the civil society.

At the One Ocean Summit organised by France in Brest in February 2022, six European states (France, Italy, Norway, Portugal, Spain, and the UK) showed commitment to developing European oceanographic excellence by transforming MOi into an intergovernmental body by 2025 through the "Brest Declaration".

Led by Director-General Pierre Bahurel, MOi is based in Toulouse, France and has over 100 employees.

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