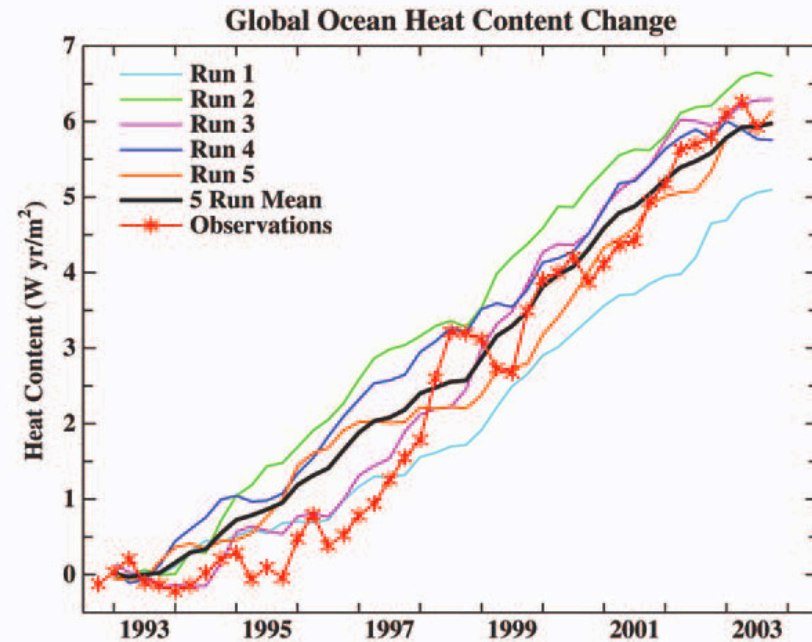




JPL Postdoc Josh Willis was a co-author on the study and provided the ocean warming estimates used for comparison with the model.



Ocean heat content vs. time, from observations and several global climate model runs.

(J. Hansen, et al\*)

A new NASA study concludes that more energy is being absorbed from the Sun than is emitted back to space, warming the globe. The study compares ocean warming estimates based on data from satellite altimeters on TOPEX/Poseidon, Jason-1 and other spacecraft, along with oceanographic profiling instruments such as Argo floats with results from a global climate model. JPL's Dr. Josh Willis used the satellite data to provide a global picture of rising sea level and ocean warming. The climate model predicted that growing amounts of human-produced greenhouse gases would trap solar radiation and lead to a warming planet. Aided by ocean altimetry data, they found this excess heat in the oceans. The measurements show that, over the past ten years, the heat content of the ocean has grown dramatically and can account for the excess energy that the climate model calculated should exist. Dr. Willis' analysis of the data showed a fairly steady, measurable warming over the past decade.

\*Hansen et al., *Earth's Energy Imbalance: Confirmation and Implications*, *Science*, 2005, vol.(308), pp. 1431-1435