

Earth may be at warmest point in 1 million years

September 25, 2006

WASHINGTON (Reuters) -- Earth may be close to the warmest it has been in the last million years, especially in the part of the Pacific Ocean where potentially violent El Nino weather patterns are born, climate scientists reported on Monday.



This doesn't necessarily mean there will be more frequent El Ninos -- which can disrupt normal weather around the world -- but could well mean that these wild patterns will be stronger when they occur, said James Hansen of NASA's Goddard Institute for Space Studies in New York City.

The El Nino phenomenon is an important factor in monitoring global warming, according to a paper by Hansen and colleagues published in the current Proceedings of the National Academy of Sciences.

El Ninos can push temperatures higher than they might ordinarily be. This happened in 1998 when a so-called "super El Nino" helped heat the Earth to a record high.

What is significant, the scientists wrote, is that 2005 was in the same temperature range as 1998, and probably was the warmest year ever, with no sign of the warm surface water in the eastern equatorial Pacific typical of an El Nino.

The waters of the western equatorial Pacific are warmer than in the eastern equatorial Pacific, and the difference in temperature between these two areas could produce greater temperature swings between the normal weather pattern and El Nino, they wrote.

They blamed this phenomenon on global warming that is affecting the surface of the western Pacific before it affects the deeper water.

EL Nino and global warming

Overall, Earth is within 1.8 degrees Fahrenheit (1 degree Celsius) of its highest temperature levels in the past million years, Hansen and the others wrote. They noted a recent steep rise in average temperatures, with global surface temperatures increasing about 0.4 degrees Fahrenheit (0.2 degrees Celsius) for each of the last three decades.

Scientists attribute this rise to human activities, notably the release into the atmosphere of greenhouse gases -- notably carbon dioxide -- which let in sunlight and trap its heat like the glass walls of a greenhouse.

Human-caused global warming influences El Ninos much as it sways tropical storms, the scientists wrote.

"The effect on frequency of either phenomenon is unclear, depending on many factors, but the intensity of the most powerful events is likely to increase as greenhouse gases increase," they wrote. "Slowing the growth rate of greenhouse gases should diminish the probability of both super El Ninos and the most intense tropical storms."

Weak El Nino conditions were present this month in the tropical Pacific, and could strengthen to a moderate event by winter, according to the U.S. National Oceanic and Atmospheric Administration, which monitors the phenomenon.

In the United States, private forecaster WSI Corp. predicted warmer-than-normal weather over the Northeast and Midwest for the rest of this year, spelling sluggish energy demand for the start of the heating season.

The warm outlook, after the mildest winter on record last year, is due to uncertainty over the El Nino -- a warming of Pacific waters around the equator that can drive weather patterns around the globe, WSI Corp. said.