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Global warming, storms tied

Higher hurricane intensity called byproduct of heating

By [Joe Bauman](#)

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An upsurge in the intensity of hurricanes may be tied to global warming, says a national weather expert.

The increase in ferocious hurricanes, tropical storms and cyclones might ameliorate somewhat the world's human-caused heating, Kevin Trenberth said when discussing the subject with the Deseret Morning News after a lecture Tuesday. On the other hand, the storms dump a great deal of precipitation and can cause severe damage.

Trenberth is chief of the Climate Analysis Section, National Center for Atmospheric Research, in Boulder, Colo. He spoke Tuesday afternoon at the University of Utah's Intermountain Networking and Scientific Computation Center.

The Tuesday talk was technical, more science-oriented than for the general public.

But today he will deliver a more general talk that is to include comments about how global warming might affect Utah, including water resources. That speech is set for noon in the Sutherland Moot Courtroom, S.J. Quinney College of Law on the U. campus. Following the talk, Salt Lake Mayor Rocky Anderson will speak about taking action to combat global warming.

During Tuesday's lecture, Trenberth said climate models do not take account as much as they should of the ways big, organized storms like hurricanes affect temperature. They are spawned when warming heats the sea, evaporating more water vapor. Huge storms then lift the warmth to the top of the atmosphere where it fans out and cooling takes place. Also, precipitation helps to dissipate heat.

Trenberth, a researcher originally from New Zealand who became a professor at the University of Illinois before moving to the center, was critical of present weather models.

He commented on "the heresy I'm committing by questioning some of the accepted beliefs of tropical meteorologists."

Four hurricanes hit Florida in 2004, he said. A record number of tropical storms hit the Atlantic in 2005. That year also had the most number of named storms in the Gulf of Mexico (28, the last named after the season ended and scientists realized it should have had a name).

"There is large variability year to year in individual basins," he commented. For example, this year had a "pretty normal season for hurricanes on the American coast.

Tropical storms and hurricanes are effective ways to cool the ocean surface, he said. Ordinary thunderstorms aren't strong enough to dissipate enough heat.

Because of global warming, Trenberth wondered if the prospects are for more intense storms. And

he wondered if the storms will leave a cold wake.

"Global warming is the dominant contributor, but it's not the whole ball of wax," Trenberth said. The systems called El Nino and La Nina also are important.

Present weather models, he believes, "very likely under-predict the changes in hurricanes" that we may expect.

After the speech, Trenberth said global warming also is implicated in the melting of the Arctic ice cover. Another lecture attendee asked if the Arctic warming in the 1930s wasn't just as severe as today, and Trenberth said no, it wasn't this bad.

"The implication is that it (the 1930s warming) is related to the Gulf Stream" and changes in ocean currents, he said.

Trenberth's talks are sponsored by the U.'s department of meteorology, College of Mines and Earth Sciences Distinguished Lecture Endowment, the Wallace Stegner Center at the S.J. Quinney College of Law and the Hinckley Institute of Politics, and by the office of the Salt Lake City mayor.

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