

## **Kukla - Forget warming, beware the new ice age**

*Lawrence Solomon, Financial Post*

Published: Friday, June 15, 2007

In the 1970s, leading scientists claimed that the world was threatened by an era of global cooling.

Based on what we've learned this decade, says George Kukla, those scientists - and he was among them -- had it right. The world is about to enter another Ice Age.

Dr. Kukla, in 1972 a member of the Czechoslovakian Academy of Sciences and a pioneer in the field of astronomical forcing, became a central figure in convincing the United States government to take the dangers of climate change seriously. In January of that year, he and another geologist, Robert Matthews of Brown University, convened what would become a historic conference of top European and American investigators in Providence, R.I. The working conference's theme: "The Present Interglacial: How and When will it End?"

Later that year, Drs. Kukla and Matthews highlighted the dangers of global cooling in *Science* magazine and, because of the urgency of the matter, in December they also alerted President Richard Nixon in a joint letter. The conference had reached a consensus, their letter stated, that "a global deterioration of climate, by order of magnitude larger than any hitherto experienced by civilized mankind, is a very real possibility and indeed may be due very soon. The cooling has natural cause and falls within the rank of processes which produced the last ice age."

The White House reacted swiftly to the letter, which described "substantially lowered food production" and "extreme weather anomalies," such as killer frosts and floods, as well as a warning that the Soviet Union might already be in the lead in preparing for the climate disturbances to come. By February 1973, the State Department had established a Panel on the Present Interglacial, which advised Drs. Kukla and Matthews that it "was seized of the matter."

Soon, numerous other government agencies were drawn in -- the issue was seen to be of paramount importance -- and by 1974, a federal government report, *A United States Climate Program*, cited evidence of the gathering storm, including:

"A killing winter freeze, followed by a severe summer heat wave in the United States.

"Drought in the Soviet Union producing a 12% shortfall in their grain production in 1972, forcing the country to purchase grain abroad, which in turn reduced world grain reserves and helped drive up food prices.

"Collapse of the Peruvian anchovy harvest in late 1972 and early 1973, related to fluctuations in the Pacific Ocean currents and atmospheric circulation, impacted world supplies of fertilizer, the soybean market and prices of other protein feed stocks.

"The anomalously low precipitation in the U.S. Pacific Northwest during the winter of 1972-73 depleted water-reservoir storage by an amount equivalent to an amount of water required to generate more than 7% of the electric energy for the region."

By 1975, the first of numerous bills, such as the "National Climate Program Act of 1975," was introduced to establish a co-ordinated national program of climate research, monitoring, prediction and contingency-planning analysis. Much congressional testimony spoke of the inadequacy of climate

research and the need for preparedness. Meanwhile, the failure of the Soviet Union's wheat crop (and a subsequent high-profile U.S. wheat deal), the severe winter of 1976-77 and El Nino's influence on climate became dinner-table talk, heightening the government's desire to predict the climate. In September, 1979, President Jimmy Carter signed the National Climate Program Act into law, in aid of predicting future climate and combating global cooling. That act has now been enlisted in the effort to counter global warming.

Many today speak with derision of the 1970s global-cooling scare, seeing it as a cautionary false alarm. Others see it as an embarrassment -- Newsweek magazine, which published a 1975 article entitled "The Cooling World," even corrected the record with a 2006 follow-up to its 1975 article arguing that scientists now have it right.

Dr. Kukla sees it -- and the 1975 Newsweek article -- differently. Although the magazine article indicated that the cooling trend would be continuous, scientists knew otherwise. "None of us expected uninterrupted continuation of the trend," he states. Moreover, thanks to new evidence that Dr. Kukla only recently published, he now knows that global warming always precedes an ice age. That makes the current period of global warming a mere blip that constitutes additional indication of the ice age to come.

To Dr. Kukla, the fundamental issue here could not be more clear. For millions of years, the geologic record shows, Earth has experienced an ongoing cycle of ice ages, each typically lasting about 100,000 years, and each punctuated by briefer, warmer periods called interglacials, such as the one we are now in. This ongoing cycle closely matches cyclic variations in Earth's orbit around the sun.

"I feel we're on pretty solid ground in interpreting orbit around the sun as the primary driving force behind ice-age glaciation. The relationship is just too clear and consistent to allow reasonable doubt," Dr. Kukla said. "It's either that, or climate drives orbit, and that just doesn't make sense."

--- - Lawrence Solomon is executive director of Urban Renaissance Institute and Consumer Policy Institute, divisions of Energy Probe Research Foundation. [www.urban-renaissance.org](http://www.urban-renaissance.org).

#### CV OF A DENIER:

George Kukla, micropaleontologist and Special Research Scientist at the Lamont-Doherty Earth Observatory of Columbia University, is a pioneer in the study of solar forcing of climate changes. He was the lead author of the scientific paper that first supported Milutin Milankovic's theory of glacial cycles by investigating the stratigraphy in deep-sea sediment cores from the southern Indian Ocean. In the cores were clear imprints of Milankovic's proposed cycles. In his paper he wrote, "We are certain now that changes in the Earth's orbital geometry caused the ice ages. The evidence is so strong that other explanations must now be discarded or modified." Prior to joining Columbia in 1971, he had published landmark studies in Czechoslovakia, where he was a member of the Czechoslovakian Academy of Sciences.

[LawrenceSolomon@nextcity.com](mailto:LawrenceSolomon@nextcity.com)