For benefit of readers without access to the National Post – Another inconvenient truth not many have heard of - Ed

THE DENIERS — PART XXI

The ice-core man

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Once upon a time, and for millennia before then, carbon dioxide levels in the atmosphere were low and stable. Then came the industrial revolution and CO2 levels began to rise. The more man industrialized, the more that CO2 — and the temperature — rose. In the last half century, with industrialization at unprecedented levels, CO2 reached levels unprecedented in the human history. This is the story of global warming.

This story is a fable, says Zbigniew Jaworowski, past chairman of the United Nations Scientific Committee on the Effects of Atomic Radiation, a participant or chairman of some 20 Advisory Groups of the International Atomic Energy Agency and the United Nations Environmental Program, and current chair of the Scientific Committee of the Central Laboratory for Radiological Protection in Warsaw.

Dr. Jaworowski agrees that CO2 levels rose in the last half century. Starting in 1958, direct, real-time measurements of CO2 have been systematically taken at a state-of-the-art measuring station in Hawaii. These measurements, considered the world's most reliable, are a good basis for science by bodies like the UN's Intergovernmental Panel on Climate Change, the agency that is co-ordinating the worldwide effort to stop global warming.

But the UN does not rely on direct real-time measurements for the period prior to 1958. "The IPCC relies on icecore data — on air that has been trapped for hundreds or thousands of years deep below the surface," Dr. Jaworowski explains. "These ice cores are a foundation of the global warming hypothesis, but the foundation is groundless — the IPCC has based its global-warming hypothesis on arbitrary assumptions and these assumptions, it is now clear, are false."

Ice, the IPCC believes, precisely preserves the ancient air, allowing for a precise reconstruction of the ancient atmosphere. For this to be true, no component of the trapped air can escape from the ice. Neither can the ice ever become liquid. Neither can the various gases within air ever combine or separate.

This perfectly closed system, frozen in time, is a fantasy. "Liquid water is common in polar snow and ice, even at temperatures as low as -72C," Dr. Jaworowski explains, "and we also know that in cold water, CO2 is 70 times more soluble than nitrogen and 30 times more soluble than oxygen, guaranteeing that the proportions of the various gases that remain in the trapped, ancient air will change. Moreover, under the extreme pressure that deep ice is subjected to — 320 bars, or more than 300 times normal atmospheric pressure — high levels of CO2 get squeezed out of ancient air."

Because of these various properties in ancient air, one would expect that, over time, ice cores that started off with high levels of CO2 would become depleted of excess CO2, leaving a fairly uniform base level of CO2 behind. In fact, this is exactly what the ice cores show.

“According to the ice-core samples, CO2 levels vary little over time,” Dr. Jaworowski sates. “The ice core data from the Taylor Dome in Antarctica shows almost no change in the level of atmospheric CO2 over the last 7,000 to 8,000 years — it varied between 260 parts per million and 264 parts per million.

“Yet other indicators of past CO2 levels, such as fossil leaf stomata, show that CO2 levels over the past 7,000 to 8,000 years varied by more than 50 parts per million, between 270 and 326 parts per million. We also know that there have been great fluctuations in temperature over that time period — the Little Age just 500 years ago, for example. If the icecore record was reliable, and CO2 levels reflected temperatures, why wouldn’t the ice-core data have shown CO2 levels to fall during the Little Ice Age? ”

Dr. Jaworowski has devoted much of his professional life to the study of the composition of the atmosphere, as part of his work to understand the consequences of radioactive fallout from nuclear-weapons testing and nuclearreactor accidents. After taking numerous ice samples over the course of a dozen field trips to glaciers in six continents, and studying how contaminants travel through ice over time, he came to realize how fraught with error ice-core samples were in reconstructing the atmosphere. The Chernobyl accident, whose contaminants he studied in the 1990s in a Scandinavian glacier, provided the most illumination.

“This ice contained extremely high radioactivity of cesium-137 from the Chernobyl fallout, more than a thousand times higher than that found in any glacier from nuclear-weapons fallout, and more than 100 times higher than found elsewhere from the Chernobyl fallout,” he explained. “This unique contamination of glacier ice revealed how particulate contaminants migrated, and also made sense of other discoveries I made during my other glacier expeditions. It convinced me that ice is not a closed system, suitable for an exact reconstruction of the composition of the past atmosphere.”

Because of the high importance of this realization, in 1994 Dr. Jaworowski, together with a team from the Norwegian Institute for Energy Technics, proposed a research project on the reliability of trace-gas determinations in the polar ice. The prospective sponsors of the research refused to fund it, claiming the research would be “immoral” if it served to undermine the foundations of climate research.

The refusal did not come as a surprise. Several years earlier, in a peer-reviewed article published by the Norwegian Polar Institute, Dr. Jaworowski criticized the methods by which CO2 levels were ascertained from ice cores, and cast doubt on the global-warming hypothesis. The institute’s director, while agreeing to publish his article, also warned Dr. Jaworowski that “this is not the way one gets research projects.” Once published, the institute came under fire, especially since the report soon sold out and was reprinted. Said one prominent critic, “this paper puts the Norsk Polarinstitutt in disrepute.” Although none of the critics faulted Dr. Jaworowski’s science, the institute nevertheless fired him to maintain its access to funding.

Is there an alternative to ice-core samples, which are but proxies from which assumptions about the historical composition of the atmosphere can be made? “Yes, there are several other proxies, and they lead to different findings about CO2,” Dr. Jaworowski states. “But we don’t need to rely on proxies at all.

“Scientists from numerous disciplines have been examining CO2 since the beginning of the 19th century, and they have left behind a record of tens of thousands of direct, real-time measurements. These measurements tell a far different story about CO2 — they demonstrate, for example, that CO2 concentrations in the atmosphere have fluctuated greatly, and that several times in the past 200 years CO2 concentrations have exceeded today’s levels.

“The IPCC rejects these direct measurements, some taken by Nobel Prize winners. They prefer the view of CO2 as seen through ice.”

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