

CLIMATE CHANGES IN THE COMING CENTURY

IPCC Predictions:

What does the century have in store for global climates? According to the IPCC, Al Gore's recent book, and many computer modelers who believe that CO₂ is the cause of global warming, the Earth is in store for climatic catastrophe later this century. Computer models predict global warming of as much as 5-6° C (10-11° F) (Fig. 1), which would cause massive starvation from crop failures, melting of most of the world's glaciers, sea level rise with drowning of some low-lying islands and coastal cities, and numerous environmental changes. All of this is predicated on the assumption that global warming is caused by increasing atmospheric CO₂ and that CO₂ will continue to rise rapidly.

The Intergovernmental Panel on Climatic Change (IPCC) has projected that in the next century, global warming will continue to rise to catastrophically higher and higher levels (Figure 1). The basis for this prediction is that the IPCC believes that rising atmospheric CO₂ is the cause of global warming and that CO₂ levels will continue to rise in the future, so global temperatures will also continue to rise. Computer models, programmed to calculate rise in global temperatures as a function of CO₂, predict that by 2100, atmospheric CO₂ will rise to 540-970 ppm and global temperature will increase 0.6 °C (1.1° F) by 2010, 1.2° C (2.1° F) by 2038, and up to 10.7°C (19° F) by 2100.

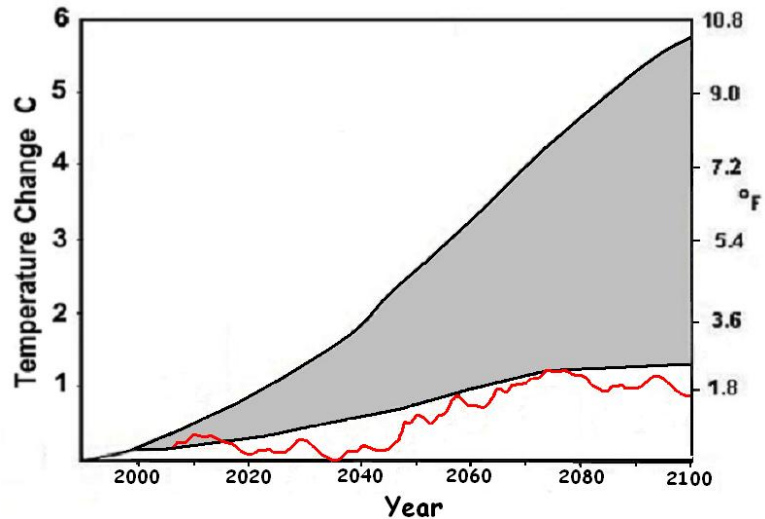


Figure 1. IPCC computer-projected global temperature increase for the coming century.

The validity of these predictions depends on the assumptions that (1) the cause of global warming is rising CO₂, (2) the rise in CO₂ is caused by anthropogenic fossil fuel emissions and other human activities, and (3) anthropogenic fossil fuel emissions will continue to rise throughout the present century. With so much at stake, verifying the soundness of these assumptions is of critical importance.

The ramifications of such an increase in global warming are far reaching, even catastrophic in some areas. Such a rise of global surface temperatures would have devastating results. The Arctic Ocean would become free of its cover of sea ice, the Greenland ice sheet would diminish rapidly, and alpine glaciers would disappear. Water supply in areas that depend on snowmelt would be severely impacted. Melting of Greenland and Antarctic ice would cause sea level to rise, flooding low coast areas and submerging low coral islands in the oceans. Crops in critical agricultural areas would fail, resulting in widespread starvation of millions of people in agriculturally marginal areas. Wheat/grain belts, such as the mid-continent area of North America, would have to shift northward. Droughts would become increasingly severe in dry areas. Environmental impacts would be severe, resulting in extinction of some species and drastic population decreases in others.

Predictions Based on Past Climate Patterns

Considering all the positive correlations between solar activity and global climate change, what if the cause of global warming is solar, rather than atmospheric CO₂? Then all of the computer models are meaningless and we can look to past natural climatic cycles as a basis for predicting future climate

changes. The climatic fluctuations over the past few hundred years suggest ~30 year climatic cycles of global warming and cooling, on a general rising trend from the Little Ice Age cool period. If the trend continues as it has for the past several centuries, global temperatures for the coming century might look like those in Figure 2. Global cooling should begin soon and last until about 2040, then warm again until

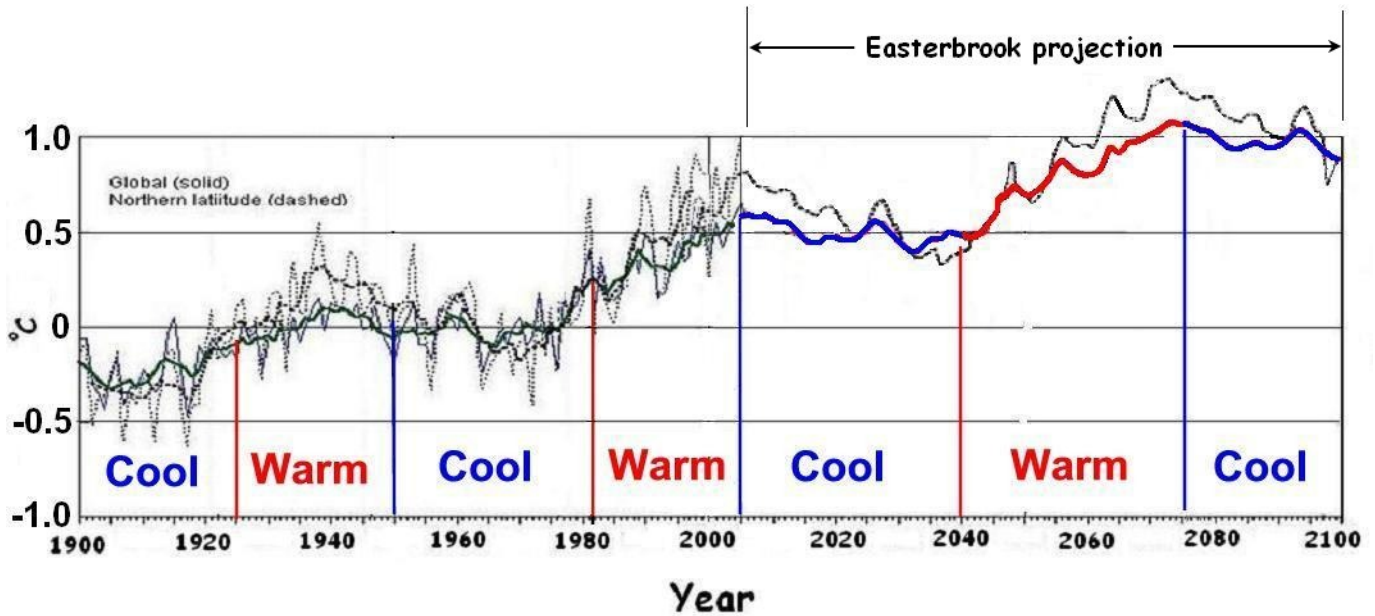


Figure 2. Global temperature projection for the coming century, based on warming/cooling cycles of the past several centuries.

about 2070, and cooling again to the end of the century. The total increase in global warming from now to the end of the century should be only about 0.4°C, compared to nearly 11°C (maximum) predicted by the IPCC (Fig. 3)

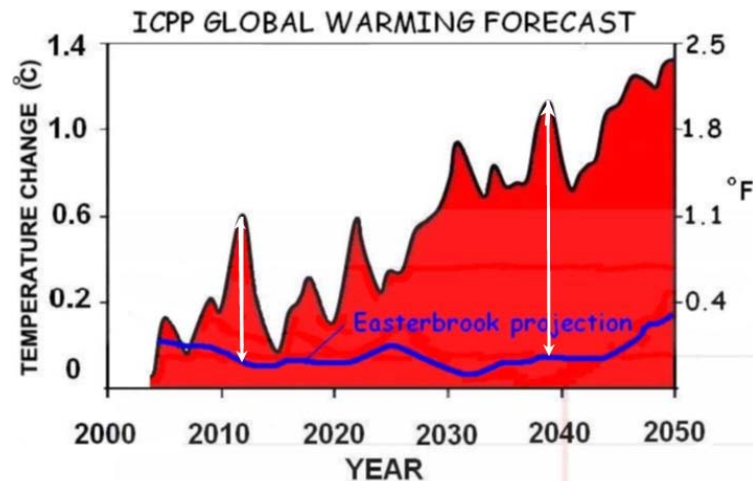


Figure 3. Comparison of IPCC global warming predictions to 2050 and the Easterbrook projection.