

Abstract Submitted
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Comparison of Trends in Proxy Temperature Data with Measured Temperature Data JIM ROBERTS, JAMES OTTO, University of North Texas — In this work the changing patterns in tree ring growth, fluctuations in Greenland ice core and other proxy data samples have been compared **to determine** long term patterns in global temperature change. Temperatures **were** examined for the past 2000 years to test for long-term trends in the data. Signatures of warming trends have been identified that predate the Industrial Revolution. The goal of this work is to compare some randomly chosen proxy data sets during the last 2000 **for** trends over time to determine what “cycles” of warming and cooling the Earth has enjoyed over a significant period of years. Two intervals of time were considered, 200 to 1000 CE, a period ending near the Medieval Warming Period, and 1000 to 1800 CE, a period overlapping the Medieval Ice Age, to test for overall trends with a peak in temperature at 1000 CE assumed. The data were used to extrapolate a predicted global temperature from proxy data to be compared with actual measured temperature data for the recent 130 years. Two basic questions are tested: Is global warming a new thing? To what extent is humankind responsible for global warming? The patterns detected indicate that over decades the Earth temperatures have enjoyed numerous intervals of both global warming and global cooling while trending toward long-term lower temperatures until 1910 CE.

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