Global Temperature Anomaly Models and Vostok Ice Core Data

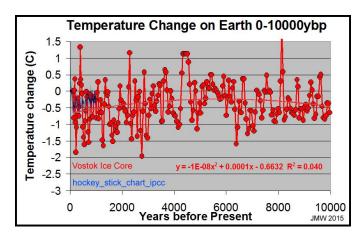
Joel M Williams 2015

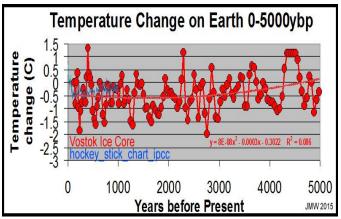
Abstract

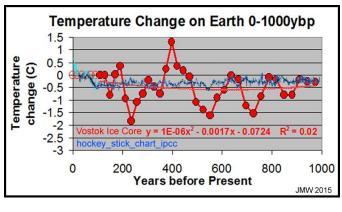
The "hockey-stick" behavior is plotted on the Vostok Ice Core data for comparison. Plots are made for 0-300 to 0-10000ybp. While the former shows almost no deviation from linearity, the Ice Core data demonstrates that the earth has gone through considerable warm and cold spells since the last Ice Age.

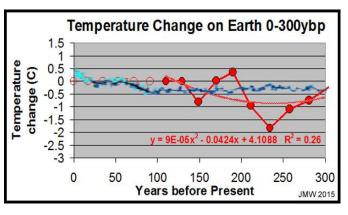
In addition, the Vostok Ice Core data is plotted on a graph containing many modeling methods for the last 2000 years. Typically, the models are not as variant as the Ice Core data, except for the recent few decades.

In order to compare the "hockey-stick global anomaly temperature" with the Vostok Ice Core data², the following plots are presented. Regression curves of the Ice Core data are from 100-Xybp. The "hockey-stick" data is well within the variability expressed by the Ice Core data. Unlike the "hockey-stick" data, the only downward mean slope of the Ice Core data for the period 0-2000ybp occurs with the 100-10000ybp regression. Has the "hockey-stick" data been treated the same way for the last 2 decades as it was for the previous centuries? Or are we seeing little smoothing in the recent stuff vs the long-term trend?





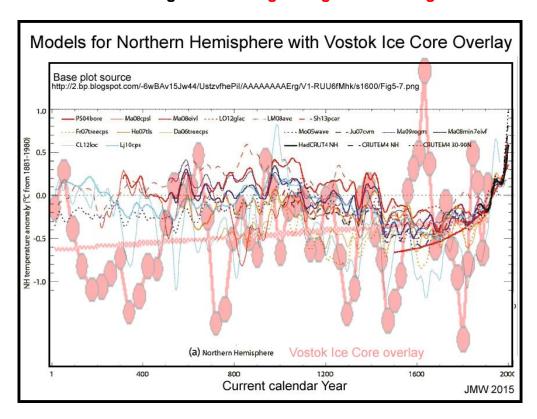




¹ https://wattsupwiththat.files.wordpress.com/2013/08/hockey_stick_chart_ipcc_large1.png

² The data available from CDIAC represent a major effort by researchers from France, Russia, and the USA; Jouzel and others in these refs - Nature 329:403-8 (1987), Nature 364:407-12 (1993), Nature 399: 429-436 (1999) and Climate Dynamics 12:513-521 (1996); http://cdiac.ornl.gov/ftp/trends/temp/vostok/vostok.1999.temp.dat

The Vostok Ice Core data overlays a number of modeling programs³ in the figure below. All of them, except the CL12loc data, show little variance compared to the Ice Core data. The Northern Henisphere CL12loc data appears offset (delayed response?) relative to the Antarctica Ice Core data. What is particularly disturbing is the opposite deviation of all of the models from the Ice Core data in the 1600-ish time range! Something strange is occurring. Data? Modeling?



http://2.bp.blogspot.com/-6wBAv15Jw44/UstzvfhePil/AAAAAAAAErg/V1-RUU6fMhk/s1600/Fig5-7.png https://books.google.com/books?id=jn4mCAAAQBAJ&pg=PA409&lpg=PA409&dq=CL12loc+climate+model&source=bl&ots=-

UyPlgo4Hc&sig=dIRDGPl2A5FSNJDrIxoJ6dMGDfA&hl=en&sa=X&ved=0CEAQ6AEwBWoVChMIhsHrmNGwxwIVIxKSCh1SZwww#v=onepage&q=CL12loc%20climate%20model&f=false