

Appendix J

Limitations of Surface Temperature Records:

Findings of D'Aleo and Watts (2010)

D'Aleo and Watts (2010) have investigated the integrity of surface temperature measurement stations. After the following a brief excerpt from the introduction to their 199 page report, the findings from the Summary for Policymakers are listed. Excerpt from page 8:

“A QUESTION OF GLOBAL TEMPERATURE

Recent revelations from the Climategate² whistleblower emails, originating from the Climatic Research Unit at the University of East Anglia followed by the candid admission by Phil Jones, the director of the CRU in a BBC interview that his *“surface temperature data are in such disarray they probably cannot be verified or replicated”* certainly should raise questions about the quality of global data.

This reflects on both NOAA and NASA in the United States. Phil Jones admitted *“Almost all the data we have in the CRU archive is exactly the same as in the GHCN archive used by the NOAA National Climatic Data Center.”* NASA uses the GHCN as the main data source for the NASA GISS data.

These facts have inspired climate researchers worldwide to take a hard look at the data proffered by comparing it to the original data and to other data sources. This report compiles some of the initial findings.”

² http://scienceandpublicpolicy.org/reprint/climategate_analysis.html

Excerpt from pages 6 and 7:

“Summary for Policy Makers (by SPPI)

1. Instrumental temperature data for the pre-satellite era (1850-1980) have been so widely, systematically, and unidirectionally tampered with that it cannot be credibly asserted there has been any significant “global warming” in the 20th century.
2. All terrestrial surface-temperature databases exhibit very serious problems that render them useless for determining accurate long-term temperature trends.
3. All of the problems have skewed the data so as greatly to overstate observed warming both regionally and globally.

4. Global terrestrial temperature data are gravely compromised because more than three-quarters of the 6,000 stations that once existed are no longer reporting.
5. There has been a severe bias towards removing higher-altitude, higher-latitude, and rural stations, leading to a further serious overstatement of warming.
6. Contamination by urbanization, changes in land use, improper siting, and inadequately-calibrated instrument upgrades further overstates warming.
7. Numerous peer-reviewed papers in recent years have shown the overstatement of observed longer term warming is 30-50% from heat-island contamination alone.
8. Cherry-picking of observing sites combined with interpolation to vacant data grids may make heat-island bias greater than 50% of 20th-century warming.
9. In the oceans, data are missing and uncertainties are substantial. Comprehensive coverage has only been available since 2003, and shows no warming.
10. Satellite temperature monitoring has provided an alternative to terrestrial stations in compiling the global lower-troposphere temperature record. Their findings are increasingly diverging from the station-based constructions in a manner consistent with evidence of a warm bias in the surface temperature record.
11. The U.S. National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA), along with Climate Research Unit (CRU), were the driving forces behind the systematic hyping of 20th-century “global warming”.
12. Changes have been made to alter the historical record to mask cyclical changes that could be readily explained by natural factors like multi-decadal ocean and solar changes.
13. Global terrestrial data bases are seriously flawed and can no longer be trusted to assess climate trends or VALIDATE model forecasts.
14. An inclusive external assessment is essential of the surface temperature record of CRU, the Goddard Institute for Space Studies (GISS) and National Climatic Data Center (NCDC) “chaired and paneled by mutually agreed to climate scientists who do not have a vested interest in the outcome of the evaluations.”
15. Reliance on the global data by both the UN Intergovernmental Panel on Climate Change (UNIPCC) and the US Global Change Research Program (GCRP)/Climate Change Science Program (CCSP) also requires a full investigation and audit.”

Reference

D'Aleo, J., and Watts, A. 2010. *Surface Temperature Records: Policy Driven Deception?* SPPI Original Paper, Updated April 13, 2010.
http://scienceandpublicpolicy.org/images/stories/papers/originals/surface_temp.pdf