

Comments on Issue 3 of the

Dear Independent Review Team,

I have collaborated with Phil Jones closely during work on the ‘International Detection and Attribution Group’ project (as obvious from the stolen emails), which has been funded by the US DOE and NOAA since the mid-1990s, and which is presently being led by me. Phil Jones’s work in that group is largely linked to the climate of the last millennium. I have always experienced Phil as a very careful researcher, and trust his integrity. In most of his publications, Phil shows both instrumental and proxy-based datasets separately, and I have known him to be sceptical of combining both datasets.

My own research, particularly collaborative with Tom Crowley, also relates to estimating the magnitude of climate fluctuations in the past millennium, and the role of forcings in them. The best estimate of warmth during the MWP, if using multiple records that are broadly representative for the Northern Hemisphere, tends to be at most as warm as the early 20th century. ‘Contain’ the MWP would be read by me as attempting to estimate the warmer 5% uncertainty range of the MWP and assessing if it is indeed below the late 20th century warming or not (‘containing the uncertainties’). My own publication in J Climate

Hegerl G. C., T. Crowley, M. Allen, W. T. Hyde, H. Pollack, J. Smerdon, E. Zorita (2007): Detection of human influence on a new 1500yr climate reconstruction, *J. Climate*, **20**, 650-666. (28)

deals, among other things, with the magnitude of the MWP. Note that some of the coauthors on this publication have been critical of the ‘hockeystick’ (Smerdon, Zorita) but our reconstruction shows limited warmth during the MWP. However, what I find scientifically much more important and interesting than the relative warmth of one period compared to another is the role of external drivers in climate of the past. Our results show that warm and cold episodes in the past can be tightly linked to external forcing. This is much more relevant to attributing changes in climate to causes.

The finding that human influence is responsible for much of recent warming, published in the recent IPCC report, chapter 9, which has been led by Francis Zwiers and me, is driven by work studying links between forcing and climate rather than by work comparing one episode of climate with another. I hope this helps, apologies that this is a bit rushed, I only found out about this call for input an hour ago and so had very limited time before another commitment this afternoon – I am happy to provide more input if helpful

Sincerely

Prof Gabriele Hegerl, U Edinburgh