

Information re: Wahl and Ammann (2007, Climatic Change) and its usage in the IPCC AR4

(1) The contentions made concerning the dependency relationship of the Wahl and Ammann (2007) paper on the Ammann and Wahl (2007) paper are inaccurate, as described immediately below.

The results shown in Wahl and Ammann (2007) do not depend on information or assumptions that are drawn from Ammann and Wahl (2007). Rather, Wahl and Ammann (2007) point to additional information and arguments developed in more detail in Ammann and Wahl (2007). The primary thrust of this information, focused on the nature of principal components summaries of climate proxy information from North America and how these might be affected by different methods for identifying the principal components, was already identified in the published literature by McIntyre and McKittrick in the first of their 2005 articles in *Geophysical Research Letters* and in their 2005 article in *Energy and Environment*. Both of these articles were referenced in this regard in the Wahl and Ammann (2007) article, in both the in press and final published versions.

Section 3.2 of Wahl and Ammann (2007) (cf. pages 50-53; Figures 3 and 4) fully and independently examines the entire set of principal components methods for summarizing proxy data that were relevant to examination of the Mann et al. (1998) reconstruction.

The scientific content in Ammann and Wahl (2007) to which Wahl and Ammann (2007) point is unaltered and equivalent to the content in the ultimately rejected *Geophysical Research Letters* (GRL) manuscript. The initial manuscript submitted to GRL was neither turned down by GRL for its scientific content nor for technical issues, but rather for editorial purposes related to a sequence of comment-reply pairs. This information was fully reported by the editor of *Climatic Change*, when clarification on this point was requested of him in the past. As no new information was added in this process, only a change of reference, it was therefore considered appropriate to replace what was initially a reference to a GRL manuscript in Wahl and Ammann (2007) with a pointer to the *Climatic Change* Ammann and Wahl (2007) article.

(2) In the context of these contentions, it is key to point out that there is only one place in the IPCC AR4 document in which the Wahl and Ammann (2007) paper is cited as a direct counter to a result reported by McIntyre and McKittrick (2003). This is on page 466 of the Working Group 1, Paleoclimate, Chapter 6, section 6.6.1.1. Here it is reported that Wahl and Ammann (2007) were able to closely replicate the original Mann et al. reconstruction, which the text mentions that McIntyre and McKittrick (2003) report they were not able to do; mention is also made that Wahl and Ammann (2007) report they can explain this difference.

The relevant parts of Wahl and Ammann (2007) to which the AR4 document refers here are in sections 3.1 and 3.2 on pages 46-48, and Figure 1 on page 42. These results are entirely independent of information and arguments contained in Ammann and Wahl (2007).

The only other citation of Wahl and Ammann (2007) in the IPCC AR4 document is also on page 466 of the Working Group 1 text, and in this case is referred to as modifying the import of, but

not logically countering, a result of McIntyre and McKittrick (from the first of their 2005 articles in *Geophysical Research Letters* and in their 2005 article in *Energy and Environment*). It is only these latter papers by McIntyre and McKittrick to which the contentions made concerning the relationship of the Wahl and Ammann (2007) and Ammann and Wahl (2007) papers have any bearing. As mentioned in the third paragraph of section (1) above, the relevant results of Wahl and Ammann (2007) to which the IPCC AR4 document refers in this situation (the nine lines at the top of p. 51 of Wahl and Ammann, 2007) are entirely and fully developed therein, without dependence on Ammann and Wahl (2007).

3) Preliminary acceptance was given to the Wahl Ammann (2007) paper in December 2005, pending addition of numeric validation information that in previous versions was only discussed in the text, and reworking of the presentation (but not content) of graphics. The second condition is trivial, and is not considered further here. The first condition, which was not associated with changes in any of the primary results, was communicated to the IPCC Lead Authors. Therefore, it was clear that the paper had passed peer-review at this time, and it was also thus clear that it would be published upon provision of the requested extra information and remade graphics. Indeed, the editor mentioned explicitly in the preliminary acceptance letter that further peer review would not be needed if we made these changes as requested and provided adequate explanation of them in our cover letter, and he would himself make the final review for acceptance. These conditions were met in the version accepted by the editor on February 28, 2006. None of the primary results or arguments, not even in detail -- including those mentioned in the IPCC AR4 noted in section (2) -- changed between preliminary acceptance in December 2005 and the published paper.

4) For the IPCC AR4's assessment of the questions about the Mann et al. (1998) results and the papers critical of them by McIntyre and McKittrick (2003, 2005a, 2005b), the key results of Wahl and Ammann (2007) were available online and to the IPCC lead authors. Since the original submission of Wahl and Ammann (2007), we posted our paper, code, and results on our web site. The pertinent results under discussion here remained unchanged throughout the review process and publication. Additionally, no one, neither reviewers nor the public, ever indicated that there were errors in our reconstruction code. The contention that the version accepted for publication in late February 2006 was significantly different from the published paper is entirely inaccurate: we want to emphasize that, as mentioned in section (3), none of the primary results -- including those mentioned in the IPCC AR4 -- had changed, in fact, since December 2005.

5) It is in the best scientific interest of readers in the literature as well as in IPCC that credible arguments be brought forward to explain contentious points. IPCC's charge was to offer all information available, and the sentences mentioned in section (2) well reflect this charge. Under all considerations, the statements referred to in the IPCC WG1 report on page 466 are reasonable and (at least) fair. They present due weight to the McIntyre and McKittrick criticisms of Mann et al. (1998), despite the fact that these criticism had been found to be insignificant.