

## **APPENDIX A – Letter & Annex from Prof. Boulton to Prof. Briffa, 6 May 2010**

6 May 2010

Dear Professor Briffa

I do apologise for this belated letter, but the last few weeks have involved intensive work from the Review Team that has delayed the letter that I indicated that I would write to follow up the meeting held several weeks ago in Norwich.

The purpose of this letter is to set out an issue on which we would like evidence from you, and that relates to our remit “to review CRU’s policies and practices for acquiring, assembling, subjecting to peer review and disseminating data and research findings, and their compliance or otherwise with best scientific practice”.

The particular allegation that I want to explore, based on the improperly released emails, relates to best scientific practice in disseminating scientific evidence into the public domain, and in ensuring that scientific uncertainties and disagreements are reflected in an unbiased fashion. The interface between scientific understanding and advice to policymakers is a vital one, and one that the IPCC exists to provide, where the complexities of credible current scientific understanding must be represented without bias to any particular preferred view, though recognizing the IPCC process is one of assessment and not review. The allegation is not whether or not detailed IPCC procedures were followed, that is a matter for the IPCC, but whether IPCC procedures were misused to favour one particular view of climate change to the detriment of a credible countervailing view.

This specifically relates to your role as lead author for chapter 6 in the IPCC Fourth Assessment Report (AR4), where is alleged:

- a) that notwithstanding clear IPCC rules about the status of papers that could be used as a basis for assessment, that excessive effort, involving distortion of contemporary IPCC rules, was made to include a paper by Wahl and Amman that claimed to disprove the results of McIntyre and McKittrick (2003), and that the motive for doing so was your desire to ensure that the latter paper's conclusions could be dismissed in the AR4 document rather than represented as a credible alternative view.
- b) that further evidence of this intent is the fact that the Wahl and Amman paper did not contain the results that were used in the AR4 rebuttal of M&M2003, but in a paper the definitive version of which did not appear in 2007, which had only been accepted as "in press" long after the IPCC deadline had passed.

This is the essence of the allegations rather than your adherence or otherwise to the letter of the IPCC rules, which, as I note above is a matter for them. A detailed account on which this allegation is based has been presented to us and is given in the annex to this letter.

The essence if these allegations is that you made exceptional attempts to incorporate one particular view of climate change, and to discredit an opposing view, without, at the time, an adequate scientific reason for doing so, and that this represented a failure to discharge your responsibility to represent impartially current scientific understanding at the vital interface between science and policy.

I would be grateful for a careful and reasoned response the above allegations, with verifiable evidence where that is possible.

Yours sincerely  
Geoffrey Boulton

## ANNEX

The IPCC Working Group One (WGI) timetable dated 20 January 2006, issued by the WGI Technical Support Unit (TSU) stated in its entries for the year 2005 [sic]:

*“Third Lead Author meeting, December 13 to 15, Christchurch, New Zealand. This meeting considers comments on the first order draft and writing of the second order draft starts immediately afterwards. Meeting of the TS/SPM writing team December 16, Christchurch, New Zealand Note. Literature to be cited will need to be published or in press by this time.”*

This entry was retained verbatim in the updated timetable dated 14 August 2006 and, other than the addition of the meeting of the TS/SPM writing team, this entry was the same as for the earlier timetable of 8 February 2005.

More specific instructions are included in a 1 June 2005 “Deadlines” document, written by Martin Manning and entitled “Deadlines for literature cited in the Working Group I Fourth Assessment Report”. This document has since been removed from the WGI website but it stated:

*“When the second draft of the AR4 is written authors need to be sure that any cited paper that is not yet published will actually appear in the literature, is correctly referenced, and will not be subsequently modified (except perhaps for copy editing). In practice this means that by December 2005, papers cited need to be either published or "in press". When the second draft of the AR4 is sent to Governments and experts for the second round review, the TSU must hold final preprint copies of any unpublished papers that are cited in order that these can be made available to reviewers. This means that by late-February 2006 if LAs can not assure us that a paper is in press and provide a preprint we will ask them to remove any reference to it.”*

In leaked UEA email 1139591144, Eugene Wahl reported on the slow progress to get accepted the papers he was writing with Caspar Ammann in one case and Bette Otto-Bliesner in another other. On 10 February 2006, Overpeck replied: *“Based on your update (which is much appreciated), I'm not sure we'll be able to cite either in the SOD due at the end of this month (sections will have to be done this week, or earliest next week to meet this deadline). The rule is that we can't cite any papers not in press by end of Feb. From what you are saying, there isn't much chance for in press by the end of the month? If this is not true, please let me, Keith, Tim and Eystein know, and make sure you send the in press doc as soon as it is officially in press (as in you have written confirmation). We have to be careful on these issues.”*

The sentence, that Wahl put in parentheses above, shows that he had understood the clear TSU instruction that the paper had to be “in press” by 16 December and was not expecting his paper, written with Caspar Ammann, to be acceptable to the IPCC WGI TSU. Overpeck was overlooking this and a major effort was evidently underway to squeeze this critical paper into the IPCC report. Schneider eventually replied from Australia, accepting the paper in email 1141145428, received by Wahl at 9:33 PM on 28 February 2006.

This might suggest that the Wahl and Ammann paper was then “in press” but the paper still failed to meet the 26 December 2005 deadline, and indeed if the deadline could be argued to be 28 February 2006, it missed that as well since the published version Wahl and Ammann 2007 states its acceptance date as 1 March 2006.

The matter of the “final preprint” was obviously not settled by end February 2006, as on 20 May 2006 well into the Expert Review stage, in email 1148299124 Martin Manning, the manager of the TSU writes:

*“It has been pointed out to us by a reviewer that the version of the Wahl and Amman paper (accepted by Climatic Change) on our review web site differs from the version that is available*

publicly from the NCAR web site”

Thus the TSU did not hold a “final preprint” copy by the end of February 2006. In fact it could not have it until after the Government and Expert Review stage had finished. This is because, for some of its assertions, the Wahl and Ammann 2007 cited a “companion paper”, by Ammann and Wahl, which had just been rejected for publication by the journal *GRL* and would not be accepted by *Climatic Change* until 13 June 2007<sup>14</sup> well after the IPCC published its WGI Report. No genuine guarantee of being published could be offered by any journal until the Ammann and Wahl paper was also “in press”.

In particular AR4 WGI Chapter 6 relies upon the then unaccepted and unpublished paper from Ammann and Wahl for its critical assertion in the text, that Wahl and Ammann 2007 disproves the work of McIntyre and McKittrick, which in its turn, demonstrated that the iconic 1998/9 ‘hockey stick’ papers of Mann, Bradley and Hughes failed standard statistical tests. The methodology in Ammann and Wahl 2007 itself was not divulged in the paper; instead readers were referred to an online supplement, which did not appear until August 2008.

Insertion into the IPCC Report of published papers that rely upon other unpublished papers can be likened to cheque kiting. In another instance the IPCC explicitly ruled this out. Back on 22 March 2006 in the email 1143137864, WGI Chapter 6 Coordinating Lead Author, Overpeck, had written to Lead Author, Briffa, and Contributing Author Osborn. He was concerned about the paper written by Caspar Ammann with others including Chapter 6 Lead Author Bette Otto-Bliesner, which was at that time cited in the working copy of the second draft and which was soon to be sent out to the Government and Expert Reviewers. Overpeck wrote: “Hi Keith and Tim - need FAST help. Figure 6.13, and Table 6.2 cite Amman et al., for the CSM curve. Since this paper doesn't yet exist in "in press" form (I checked w/ Bette, who is a co-author), we have two choices.”

Overpeck discussed options for finding another suitable citation or removing it. The only alternate citation that existed relied upon a “private communication” from Ammann and the decision was made to drop the citation altogether. Manning later wrote: “Susan and I have discussed your two options and have to say that we can not agree to option 1 in the circumstances. Although the Jones and Mann (2004) paper shows the NCAR simulation, the key point is that it cites it as "C. Ammann et al private communication 2003". So in effect option 1 would be bringing in material that was not peer reviewed and not even separately documented. Anyone wanting to discredit your chapter would highlight the fact that you appear to be depending on work done in 2003 that had still not been peer-reviewed.”

This email exchange shows that the TSU, at that time, were anxious to observe the “rules” and in particular did not want to allow undocumented claims to be “smuggled” into the IPCC report hidden in another peer-reviewed paper. However, this is exactly what Briffa did with Wahl and Amman 2007.

The second order draft text of IPCC 2007 WGI Chapter 6 as sent late in March 2006 to the Government and Expert Reviewers, included on page 29 the following text relying on Wahl and Ammann to rebut McIntyre and McKittrick:

*“McIntyre and McKittrick (2003) reported that they were unable to replicate the results of Mann et al. (1998). Wahl and Ammann (accepted) demonstrated that this was due to the omission by McIntyre and McKittrick of several proxy series used by Mann et al. (1998). Wahl and Ammann (accepted) were able to reproduce the original reconstruction closely when all records were included. McIntyre and McKittrick (2005) raised further concerns about the details of the Mann et*

*al. (1998) method, principally relating to the independent verification of the reconstruction against 19th century instrumental temperature data and to the extraction of the dominant modes of variability present in a network of western North American tree-ring chronologies, using Principal Components Analysis. The latter may have some foundation, but it is unclear whether it has a marked impact upon the final reconstruction (Von Storch et al., 2004; Huybers, 2005; McIntyre and McKittrick, 2005).”*

Since the text written by Briffa was grossly inaccurate and unfair, this short section of text was heavily criticised by Reviewers including the Reviewer for the Government of United States of America, who wrote in comment 6-750:

*“The use of Wahl and Ammann (accepted) does not comply with WGI’s deadlines and all text based on this reference should be deleted. WGI’s rules require that all references be “published or in print” by December 16, 2005. Wahl and Ammann was “provisionally accepted” on that date, and not fully accepted until February 28, 2006, at which time no final preprint was available. Substantial changes were made in the paper between December 16, 2005 and February 28, 2006, including insertion of tables showing that the MBH98 reconstruction failed verification with r-squared statistics, as had been reported by McIntyre and McKittrick in 2003. These tables were not available in the draft considered by WGI when developing the second-order draft.”*

The Lead Authors’ response to the Government of the United States of America was to refer to their response to the similar comment 6-1158. This was:

*“Rejected - the citation is allowed under current rules.”*

Attachment sent out to all Expert Reviewers by the TSU on US Independence Day 4 July 2006. The email read: *“Following the Government and Expert review of the Working Group I contribution to the IPCC Fourth Assessment Report, the attached guidelines are being provided to clarify how recent scientific literature related to review comments may be included in the final draft. Please feel free to distribute this information among your colleagues.”*

The attachment, created by Martin Manning on 1 July 2006, read:

*“We are very grateful to the many reviewers of the second draft of the Working Group I contribution to the IPCC Fourth Assessment Report for suggestions received on issues of balance and citation of additional scientific literature. To ensure clarity and transparency in determining how such material might be included in the final Working Group I report, the following guidelines will be used by Lead Authors in considering such suggestions.*

*In preparing the final draft of the IPCC Working Group I report, Lead Authors may include scientific papers published in 2006 where, in their judgment, doing so would advance the goal of achieving a balance of scientific views in addressing reviewer comments. However, new issues beyond those covered in the second order draft will not be introduced at this stage in the preparation of the report.*

*Reviewers are invited to submit copies of additional papers that are either in-press or published in 2006, along with the chapter and section number to which this material could pertain, via email to ipcc-wg1@al.noaa.gov, not later than July 24, 2006. In the case of in-press papers a copy of the final acceptance letter from the journal is requested for our records. All submissions must be received by the TSU not later than July 24, 2006 and incomplete submissions cannot be accepted.”*

The “new guidelines” applied only to “additional scientific literature” and only to papers actually “published in 2006”, which Wahl had just told Jones his paper failed.

In fact no draft version of the Wahl and Ammann paper in the possession of WGI during the

assessment could have been construed as a “final preprint” as there are significant differences in the published version including four additional references to Ammann and Wahl 2007 and no less than 16 new references to other papers. One new paper<sup>20</sup> cited was only accepted for publication on 20 February 2007 so Wahl and Ammann 2007 could never have actually been “in press” any earlier and must indeed have changed after “the IPCC close-off date July 2006”.

Back on 12 August 2006 a month before the final draft of Chapter 6 was completed in email 1155402164, Wahl told Briffa: *“I should note that AW 2006 is still in “in press” status, and its exact publication date will be affected by publication of an editorial designed to go with it that Caspar and I are submitting this weekend. Thus I cannot say it is certain this article will come out in 2006, but its final acceptance for publication as of 2/28/06 remains completely solid.”* Although in the first sentence Wahl referred to AW 2006, in the second it is clear from his comment, “its final acceptance for publication as of 2/28/06 remains completely solid” that he is referring to Wahl and Amman 2006. He is making it known that he cannot guarantee the paper to be published in 2006, which was the clear requirement of the “new guidelines”.

Knowing this, Briffa should have pulled all references to it. Perhaps because of this Briffa hedged his bets and on page 466 of the IPCC’s published AR4 Report the text cites the publication year as 2007 in one line then 2006 a few lines later. Email 1154353922 also shows that on 26 July 2006 two days after the deadline in the “new guidelines” expired, the WGI TSU sent all Coordinating Lead Authors the comments for their chapters. The email read: *“Dear CLAs Please find attached additional paper(s) that are relevant to your chapter and have been submitted in response to our most recent guidelines for consideration of papers published in 2006 following the expert and government review. A separate spreadsheet file is attached listing: the submitter, file name of the paper, its acceptance date, and the chapter and section which the submitter feels is relevant.*

*As discussed in Bergen, please note the following:*

*\* inclusion of additional papers in the final draft should not open up any substantive issues that were not in the second draft and so not previously reviewed;*

*\* additional papers should only be used where in the view of the LAs doing so provides a more balanced coverage of scientific views;”*

Overpeck immediately forwarded the TSU email to his Chapter 6 Lead Authors including Briffa. The attachment to this email, containing these new unpublished comments, is not in the leaked emails but was precisely what I had requested on 27 May 2008 from UEA, the Met Office and others. It is part of what Jones sought to have deleted.

On 18 July 2006 in email 1153470204 we find Briffa writing to Eugene Wahl, who is not an officially listed Expert Reviewer: *“Gene I am taking the liberty (confidentially) to send you a copy of the reviewers comments (please keep these to yourself) of the last IPCC draft chapter. I am concerned that I am not as objective as perhaps I should be and would appreciate your take on the comments from number 6-737 onwards, that relate to your reassessment of the Mann et al work. I have to consider whether the current text is fair or whether I should change things in the light of the sceptic comments. In practise this brief version has evolved and there is little scope for additional text , but I must put on record responses to these comments - any confidential help , opinions are appreciated . I have only days now to complete this revision and response. note that the sub heading 6.6 the last 2000 years is page 27 on the original (commented) draft. Cheers Keith”*

This is an astonishing email. First, it is inconceivable why Briffa, already in doubt about his own objectivity regarding the 'hockey stick' material, would turn to a known, vocal partisan on Mann's behalf for extra input. Any pretence of neutrality was lost at this point. Second, sharing IPCC Review materials in this way was well outside the rules. Members of the IPCC Review group were subjected to extraordinary obstacles in gaining access to review comments. When official Expert Reviewers James Annan asked for the review comments, he was told to wait until the hard copy was in the Littauer library and then fly half way round the world to see them. But here is Briffa handing them (confidentially) to Wahl for him to help rebuff the comments from Expert Reviewers critical of the Wahl and Ammann paper. The email lists the attachments showing that Briffa also sent Ammann the working draft of Chapter 6.

On 21 July 2006 in 1153470204 Wahl replies to Briffa in a rambling email supporting his criticism of McIntyre and McKittrick and attached text that may well have provided Briffa's response to McKittrick's review comment 6-735.

Also on 21 July 2006 in email 1155402164, Briffa thanks Wahl, but says he needs time to digest what he sent. Nonetheless Wahl then sends yet more arguments against McIntyre and McKittrick. Wahl says that some of what he sends is confidential and asks if he can see Briffa's responses. Wahl does however admit that Mann's 'hockey stick' as a whole stands or falls on the appropriateness of the "bristlecone pine records". Just a month earlier, as they both knew, the NRC Panel had reported in NRC 2006 that these bristlecone tree ring data should be "avoided" in historic temperature reconstructions.

The fact that the IPCC WGI included Wahl and Ammann, 2007 and not Wegman et al. 2006 or the critical conclusions of NRC 2006, shows that the assessment process failed to be "comprehensive and objective" as was required by the IPCC. It is a further example, like the Himalayan matter, of IPCC Authors determined to ensure their views prevail over their critics at all costs. In WGI the matter is made worse by the deliberate, retrospective, unauthorised changing of the rules in which all Lead Authors, Review Editors and Working Group Co-Chairs must have acquiesced. It is one of the worst scientific scandals ever. The record clearly shows that CRU scientists played key roles at every step where rules were broken and processes were conducted in bad faith.