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18<sup>th</sup> December 2009 - 9.15-10:15am

**Meeting of Sir Muir Russell (MR)**

Registrar Mr Brian Summers (BS),

PVC Research Prof Trevor Davies (TD)

Dean of Science Prof David Richardson (DR)

Notes taken by Lisa Williams (LW)

MR – intends to form a team for the investigation involving an expert in big data handling, someone from particle physics, plus an earth scientist, plus presentational handling advice.

Outlined that he would like provide an opportunity for

a) written comment, input from sceptics.

b) UEA scientists to show what they have done/ not done with data.

An entirely private investigation would not be satisfactory. The investigation would need to be fair and objective in order to build trust into its findings

TD outlined that Bob Watson is employed 80% as chief scientist at DEFRA and 20% UEA, a distinction many do not understand.

John Beddington has suggested that there could be a side investigation which looks at the science, in more detail than the Independent Review's terms of reference. John Beddington has indicated he would be happy to be involved.

Adrian Smith, Research Director of BIS, a statistician FRS, has also indicated a willingness to be involved.

MR – outlined his feeling at this stage was not to attempt to redo the scientific work; rather to check what has happened with and to the data.

MR – clarified that he was not an academic, and although he had significant experience in public life, management and policy making, he would not claim to bring the expertise to adjudicate on the scientific conclusions CRU had reached.

DR – it is important to ask the question of whether the science was undertaken correctly in the context of the time it was carried out. Important to remember that technology and computing power are quite different now.

MR will want to talk to Watson and Beddington and maybe others. Will need to see where the investigation leads.

TD – Met Office has been accused of meddling with figures too.

DR – science ethics under consideration too? Possibly.

BS – The Independent Review should start with the allegations that find their roots within emails. For example, the use of the word “trick” – was this in any way an attempt to hide or deceive, or a legitimate statistical method for deal with anomalous

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data? The former could call into question the scientific output. MR – No doubt such a conclusion would call in question the scientific conclusions, but that is separate from the review.

MR – important for review to gain confidence. Confidence will not be rebuilt until it is clear the whole information is out there.

BS – station data, it seems there is a high level of confidence in the availability of that data from various sources, nothing has been lost.

MR – will want to assess the allegation that it has been systematically eliminated? Need to look at what is good science treatment of analysing data?)

BS - Have individuals destroyed emails; that is far from clear? .

TD – no destruction of data. CRU did adjust 10% of station data by methods that were acceptable at the time. Releasing data by CRU is still difficult. Because of restrictions by other met stations. Russians were asked to release data but refused to do so. But yesterday they issued their own report on their station data from an additional 200 stations. Slightly different to HADCRUT results but within the error band. Other analysts could come to slightly different outcomes but the overall message corresponds with CRU's findings.

All but 5% of data is already publically available in various repositories.

MR – Is it possible to prove that the scientists involved did not destroy data or use a selection policy which skewed the outcome? TD – Yes.

MR –clarity may be needed at the outset on what a scientific “conclusion” is, if the judgements depend on probabilities.

DR - In systems biology (his field) it is possible to return to the raw data. However the CRU work was in some cases done 10 years ago. At that time, adjusted data might be in hardcopy not digital. Need to contextualise the findings to see if there was any scientific malpractice in the context of the time.

MR – email traffic – 9M emails out there.

TD – perhaps all are out now as they haven't come through. Concern that more could be revealed - Eg a month before climate change bill comes to Senate.

MR – hacked or leaked?

BS - Police investigation is underway, considerable police resources being directed its way. Police have external IT consultants working on this case. Costly investigation and could be a lengthy one. FoI is unlikely to be of interest to the police, they will leave that to Information Commissioner's Office.

BS – all interpretations of FOI legislation are intrinsically subjective. UEA staff are cooperating fully with the ICO over any section 50 complaints.

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MR – was there an expectation that he should contact ICO? Yes MR should check with Supt Gregory who should be contacted at ICO. **Action: MR to contact ICO**

MR – will listen to police to see if there are any areas of overlap which may affect criminal investigation/ assembling evidence.

TD – other institutions have been subjected to attempts to get into servers.

TD – Phil Jones and Keith Briffa under personal pressure.

MR - An opportunity for them to show objectively what they were doing with the science. Not envisaging a Chilcott enquiry approach, with the attendant media exposure.

Mr Holland and Lord Leach of Fairford have approached MR directly, sceptical about the work.

BS - Progress of this review will need to be explained to the staff too. Scoping is the initial part of exercise, but they will be seen again and and there could be other processes to be followed, depending on the outcomes.