

CLIMATE CHANGE E-MAILS REVIEW
MEMORANDUM FOR SELECT COMMITTEE ON
SCIENCE AND TECHNOLOGY

1. The Review Team's terms of reference are as follows:

“The Independent Review will investigate the key allegations that arose from a series of hacked e-mails from the University of East Anglia's Climatic Research Unit (CRU). The review will:

1.1. Examine the hacked e-mail exchanges, other relevant e-mail exchanges and any other information held at CRU to determine whether there is any evidence of the manipulation or suppression of data which is at odds with acceptable scientific practice and may therefore call into question any of the research outcomes.

1.2. 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.

1.3. Review CRU's compliance or otherwise with the University's policies and practices regarding requests under the Freedom of Information Act ('the FOIA') and the Environmental Information Regulations ('the EIR') for the release of data.

1.4. Review and make recommendations as to the appropriate management, governance and security structures for CRU and the security, integrity and release of the data it holds.”

2. The Review Team membership is:
 - Sir Muir Russell
 - Professor Geoffrey Boulton
 - Dr Philip Campbell
 - Professor Peter Clarke
 - Mr David Eyton
 - Professor Jim Norton

Details of the members can be found on the Review website www.cce-review.org

3. The remit requires the Review to address the specific allegations about the way in which CRU has handled its data, reflecting comments in the e-mail exchanges that have been made public. In a separate paper – *Issues for examination* - the Team has set out its initial view of the questions that need to be addressed. It will seek written submissions from CRU and other appropriate parts of UEA. It will also invite interested parties to comment on what the Issues paper covers, and to

propose any further matters that clearly fall within the Remit and should also be examined.

4. The Review's remit does **not** invite it to re-appraise the scientific work of CRU. That re-appraisal is being separately commissioned by UEA, with the assistance of the Royal Society. The Review's conclusions will complement that re-appraisal by pointing to any steps that need to be taken in relation to data, its availability and its handling.
5. The Team wishes to focus on the honesty, rigour and openness with which CRU handled its data. It wishes to gain a proper understanding of:
 - The range of data involved, and how it has been indexed and archived.
 - The procedures, processes and relevant protocols used to handle the data, recognizing that these may have changed over time as data-handling capacity has developed.
 - The associated metadata, algorithms and codes used for analysis.
 - The extent to which other independent analysis produces the same conclusions.
 - The peer review process, examining how much was in common between the work of the reviewers and the reviewed.
6. In making its analysis and conclusions, the Team will test the relevant work against pertinent standards at the time it was done, recognizing that such standards will have changed. It will also test them against current best practice, particularly statements of the ethics and norms such as those produced by the UK Government Office for Science and by the US National Academy of Sciences. These identify principles relating to rigour, respect and responsibility in scientific ethics and to integrity, accessibility and stewardship in relation to research data. This overall approach will allow the Team to establish a conceptual framework within which it can make judgements and comment about key issues such as the level of uncertainty inherent in all science, and the particular confidence limits associated with the CRU work.
7. The Police and the Information Commissioner are also considering issues in connection with the leaked e-mails, and the Team has established appropriate, continuing liaison with them.
8. The Team's analysis and conclusions will include not only a view of what has happened in the past, but also comments and recommendations on best practice for the future. This will be done both at the level of CRU and the University as a whole, and may have broader implications for institutions undertaking scientific work.
9. The Team will operate as openly and transparently as possible. It is establishing a website which will eventually display all of the submissions received, correspondence, analyses and conclusions. The aim will be to publish all received submissions quickly, unless there are wholly exceptional reasons to delay, for example legal issues.

Timescale of the Review

10. The Team invites submissions from UEA and the public by the end of February. These will require analysis and there may be follow-up questions and/or interviews. The Team expect to have at least preliminary conclusions by Spring 2010.

Climate Change E-Mail Review Team
February 2010