Meeting with Prof Phil Jones CRU, 3.05-3:45pm, December 18, 2009

Independent Reviewer Sir Muir Russell (MR),

Prof Phil Jones (PJ)

Prof Trevor Davies (TD)

Notes taken by Lisa Williams (LW)

MR general outline of approach.

Timing – end of Feb ideally. If not possible, an interim report may be provided.

PJ – stands by all the science. No manipulation of station temperature data. Can be easily shown, how the global temperature average compares to USA data.

The released emails are about the land data. Marine data is not part of this.

MR –Do have to recognise that the emails prompt questions.

PJ - Lots of data and programs have been published. However they are not current program. Also they do not contain the data that runs the programs.

Met Office Hadley Centre are intending to publish programs/codes early next week. They have released 1/3 of the data so far.

Then someone could rerun the work, use different stations – but would come to largely same result.

Data access issue. Some meteorological organisations do not allow us to release their data, they own it. They hope others will buy the data. The UK Met Office do not give free access to their data. Users need to pay for a licence to use the data. Academics can get access to the data (to analyse it) but as they do not own it, they cannot pass it on to third parties.

So the academics do not release original data but instead release a product: an analysis of the data.

There is a market for historic data, especially wind and sunshine data (eg where you might want to put wind turbines).

Some data can be considered commercially valuable information.

Gridding – ordnance survey grid. 25km grids.

MR – Is there confidence in data, and public understanding of error bars? Or is there sometimes a wilful misinterpretation of data?

PJ – not even all climate scientists may fully understand the error bars.

PJ - High temperature years may be caused by El Nino and low temperature years may be caused by La Nina or volcanic effects.

Decade to decade analysis is needed to understand human impacts on climate.

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Important to also understand the difference between weather and climate.

Generally 4000 stations used for land temperatures. Some analysis has been done with 1000 stations. A robust trend can be obtained using 1000 if selected well. (Elevational difference is taken out.)

Met Office has put up Q&As recently.

PJ shows map of station locations. Released data includes station location maps together with time series graph of gridded temperatures.

Combined graph for land and ocean. Takes longer for ocean to warm up due to thermal capacity of water.

Sceptics annoyed they cannot get access to raw data to see which stations have been used.

American data sets (station data) have been released for northern and southern hemisphere. Shown adjustments. Infilling for gaps in station data. Even that doesn't make a difference to the graph.

Graph shown including marine data and land data – still shows a warming trend.

1998 is warmest year in HadCRUT data, 2005 in US datasets. 1934 warmest in contiguous US series.

PJ – we do not respond to the blog sites. Too busy doing research and publications.

MR – struck by the energy that goes into blogsites.

PJ – bloggers often do not understand how science is done; or about peer review system.

MR – queried whether there are any persons who might support/explain the robustness of the peer review process. Eg Editor of Nature. Nature publish rebuttals and criticisms. Agreed this would be a good idea. Seems there is an attack on peer review which it would be helpful to address.

(PJ – is on Editorial Board of *Climate Change* journal)

Action: TD to think about this further and suggest names.

MR – urged PJ to come back if he has further thoughts on the approach outlined etc.

What science can show, educate people on statistical variations.

First graph with green bands useful (plot from Met Office site).

TD shows Met Office responding to Russian criticisms/new data produced. New graph with Russian data in – there is a difference. As far as the last 50 years are concerned, same graph plus or minus 0.4 – which is within the error bars. Need to

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convey what exactly the science is telling us and confidence in figures. Quality of Russian data not clear either.

Adjustment in climate data – due to sites moving 2km.

Poland has said no to release of data, not sure why. Non release is an undermining factor.