Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment and Energy portfolio

Question No: 259

Hearing: Additional Estimates

Outcome: Agency

Program: Bureau of Meteorology (BoM)

Topic: Homogenisation

Hansard Page:

Question Date: 6 March 2017

Question Type: Written

Senator Roberts asked:

Use of cross-correlation to choose comparators for adjusting ACORN-site data identifies sites having parallel faults and is statistically flawed. Furthermore, as comparator-site data are not tested for homogeneity or homogenised and their temperature data are not adjusted for rainfall, there is significant scope for ACORN data to be contaminated by the process. Faults in Sydney Observatory data potentially migrate across the network as far as Alice Springs (via Tibooburra) for instance. Why does the Bureau persist with homogenisation when it is obviously statistically flawed; and when resulting ACORN datasets are neither independent or homogeneous?

Answer:

This assertion is an inaccurate characterisation of the Bureau of Meteorology's methods. The Bureau's methodology is published in the scientific literature and can be found on the ACORN-SAT website, www.bom.gov.au/climate/change/acorn-sat/ .

Furthermore, the independent ACORN-SAT Technical Advisory Forum supports the Bureau's methodology, including the need for a homogenisation process which incorporates both metadata-based adjustments and adjustments based on the statistical detection of atypical observations. Please see www.bom.gov.au/climate/change/acorn-sat/#tabs=Technical-Advisory-Forum.