



## Job Details

**Reference:** 11174

**Position Title:** SENIOR CLIMATE MODELER

**Classification:** Executive Level 2 (SENIOR RESEARCH SCIENTIST)

**Salary range:** \$95,945 - \$114,329 per annum, plus an additional 15.4% superannuation

**Location:** 700 Collins Street, Docklands, Melbourne 3008

**Division:** Research and Systems

**Branch:** Centre for Australian Weather and Climate Research

**Section:** Seasonal Prediction and Climate Variability Group

**Status:** Ongoing

**Applicants:** Australian citizenship – see [Essential Applicant Information](#)

(Whilst Australian citizenship is not a mandatory requirement, the successful applicant will need to have the necessary visa and work rights)

**Applications close:** Thursday, 19 November 2009

## Advertisement

The Centre for Australian Weather and Climate Research (CAWCR, which is a partnership between the Bureau of Meteorology and CSIRO) is seeking a Senior Climate Modeler to lead the effort to investigate mechanisms and predictability of climate variability and change through experimentation and analysis of climate predictions and simulations with the ACCESS climate model. This position will do fundamental climate variability/predictability research with the ACCESS model that will lead to improved understanding of climate variability and directly promote and guide improvement of the model, especially as related to the representation of key physical processes by the model's physical parameterizations. The appointee will be a member of the Seasonal Prediction Team within CAWCR but will establish an interface between climate model developers within the ACCESS group and at the UK Met Office.

The appointee is expected to have a strong background in climate modelling, including hands-on experience with climate model code, extensive knowledge and experience with verification of climate model simulations and predictions using observational data and a strong record of publication in peer-reviewed journals.

## Duty Statement

Under broad policy control and direction of the supervising officer,

1. Undertake and lead research on mechanisms and predictability of intraseasonal to interannual climate variations through experimentation and analysis of simulations and predictions with the CAWCR climate model (ACCESS) and its implementation in POAMA.
2. Contribute to the evaluation of the ACCESS climate model and its implementation in POAMA via targeted experimentation, verification, and analysis in collaboration with the ACCESS modelling group and model development scientists at the UK Met Office
3. In collaboration with the ACCESS and UK Met Office model development teams develop and assess improvements to the model formulation to alleviate model shortcomings relevant to intraseasonal to interannual climate variability.

## Duty Statement (cont)

4. Prepare scientific papers reporting outcomes of this work for publication in international journals and prepare technical reports, project reports, and system documentation as required.
5. Be aware of, and apply as necessary, the principles and practises of the various elements of the Bureau's Social Justice Strategy.

Duty representing highest function: 1, 2 ,3 and 4.

## Job Profile

The appointee will be a member of the Seasonal Prediction Science (SPS) Team in the Climate Prediction and Change Program within CAWCR, and will lead the effort to investigate mechanisms and predictability of climate variability and change through experimentation and analysis of climate predictions and simulations with the ACCESS climate model and its implementation in POAMA (the Bureau's seasonal forecasting system). Through these investigations, the appointee will coordinate and promote development and improvement of the ACCESS climate model, especially the simulation and prediction of intra-seasonal to inter-annual climate variability, by collaboration with appropriate members of the ACCESS modelling group, other groups within CAWCR, the UK Met Office and other external groups (e.g., university research groups and external funding partners).

The main aim of this position is to establish climate modelling expertise and leadership in the SPS team, particularly in relation to utilizing and improving the ACCESS model for application to intraseasonal to decadal climate prediction. This position will establish the ability to do fundamental climate variability/predictability research with the ACCESS climate model that will lead to improved understanding of climate variability and promote and guide model improvement. This position will establish the ability to conduct routine experimentation using the ACCESS climate model and its implementation in the POAMA forecast system for investigation into mechanisms of climate variability and predictability especially as related to the representation of key physical processes by the model's physical parameterizations. This position will establish an interface between the SPS team and the climate model developers within the ACCESS group, at the UK Met Office, and other external organizations as appropriate. Liaison with other groups within CAWCR and the BoM and with external stakeholders will be a major focus of the position.

## Selection Criteria

***Applicants must address the selection criteria. To assist you prepare your application, please read the information at [General Information for Applicants](#) and complete the Bureau of Meteorology Application Cover Form.***

1. Demonstrated research experience of international standard in the use of global circulation models for climate prediction including experience in designing and executing model experiments relevant to the study of atmospheric climate variability.
2. Demonstrated high-level ability to design, undertake and lead research projects that investigate mechanisms, simulations and predictions of climate variability with the specific aim to identify pathways for the improvement of climate models.
3. Extensive knowledge and experience with analyses of observational data sets for verification of climate model simulations and predictions.
4. Demonstrated high level ability to communicate the results of research through preparation of peer-reviewed publications, and written and oral presentations to external stakeholders, policy makers and other non-experts.
5. Demonstrated ability to work harmoniously and effectively in a multi-disciplinary team environment, to supervise junior research staff, and to develop and maintain internal (cross-group) and external collaborations.
6. A knowledge and understanding of the Bureau's Social Justice Strategy and the commitment to apply the elements of this in the workplace..

**Mandatory Qualifications:  
Eligibility Requirements:**

1. (a) A degree of Doctor of Philosophy of an Australian university or a comparable overseas qualification, which is appropriate to the duties; OR other comparable qualifications which are appropriate to the duties; AND

the delegate is satisfied that the Scientist possesses:

- (a) scientific research ability, a breadth and depth of scientific interests and the potential to vary those scientific interests to accept responsibility for scientific research in fields broader than those encompassed by university training; AND
- (b) scientific skill and judgement, together with the capacity to make mature assessments and decisions on the progress of his or her scientific research work and to accept responsibility for:

- (i) the accuracy and validity of that work;

- (ii) the scientific conclusions derived personally from that work; and the advancement of that work in directions which might have a bearing on its application.

**Contact**

If you would like to know more about The Centre for Australian Weather and Climate Research visit <http://www.cawcr.gov.au> or the Bureau of Meteorology visit <http://www.bom.gov.au>

Employment conditions for most Bureau employees are contained in the Bureau's Enterprise Agreement 2009-2010 which is available on the website at: [The Bureau of Meteorology Enterprise Agreement 2009–2010](#)

Please read the selection documentation and if you have any queries specific to this position contact Dr Harry Hendon, Centre for Australian Weather and Climate Research on +61 9 9669 4120, [h.hendon@bom.gov.au](mailto:h.hendon@bom.gov.au) .

**Applications**

**Applications can be lodged personally at:** The Recruitment Unit, 7<sup>th</sup> Floor, 700 Collins Street, Docklands

**By mail to:** Recruitment Manager, Bureau of Meteorology, GPO Box 1289, Melbourne VIC 3001

**By email to:** [jobs@bom.gov.au](mailto:jobs@bom.gov.au)

**All applicants** are required to include a completed Bureau of Meteorology Application Cover Form, Résumé or CV and a Statement addressing the Selection Criteria.

**All applicants** are advised to read [General Information for Applicants](#) available on this web site before submitting their application.

Should you experience any difficulties with accessing information please contact the Recruitment Unit by email at: [jobs@bom.gov.au](mailto:jobs@bom.gov.au) or by telephone on 03 9669 4337 / 03 9669 4379 / 03 9669 4340.