

# Andrew Russell

PhD, MSc, BSc, FRMetS, MInstP, ARCS

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## Summary of Key Skills

- Interdisciplinary academic background and eagerness for new challenges
- Programming expertise in IDL and working knowledge of Fortran, MatLab and C
- Experience of working in large teams (including fieldwork) and independently with computer models
- Science communication expert
- Enthusiasm for climate science and ambition to teach at university level

## Employment

2007-present    Postdoctoral Research Associate, University of Manchester

Working on the Convective and Orographically-induced Precipitation Study (COPS) with Prof. Geraint Vaughan (Manchester) examining atmospheric stable layers in observations and model data

2005-2007      Postdoctoral Research Associate, University of Manchester

Worked on the Convective Storm Initiation Project (CSIP) with Prof. Geraint Vaughan (Manchester) analysing the influence of upper-level features on convection

## Education

2001-2005      PhD in Climate Dynamics, University of Birmingham and British Antarctic Survey  
Supervisors: Prof. Glenn McGregor (now at Auckland) and Dr. Gareth Marshall (BAS)

2000-2001      MSc in Mathematical Modelling of the Environment (72%), University of East Anglia

1997-2000      BSc Physics (Upper second class), Imperial College, University of London

## Grants Awarded

2008    Royal Society Outgoing Short Visits grant (**£750**) to visit Dr. Michael Sprenger at ETH Zurich

2008    RMetS local centre funding (**£1000** to be spent organising local centre meetings)

2008    RMetS Legacies Fund to attend NCCR Climate Summer School in Switzerland (**£400**)

2007    RMetS local centre funding (**£750** to be spent organising local centre meetings)

2006    NERC funding (**£1500**) and University Training Grant (**£500**) to attend GEFD summer school

2003    RMetS Legacies Fund to attend a conference in New Zealand (**£350**)

2003    AMS Conference Funding to attend a conference in New Zealand (**£1500**)

1997    The Dubris Award – an undergraduate scholarship (**£1000**)

## Professional Affiliations

Fellow of Royal Meteorological Society (FRMetS)

Full Member of American Meteorological Society

Full Member of the Institute of Physics (MInstP)

Associate of the Royal College of Science (ARCS)

## Professional Responsibilities

Chairman and Treasurer of the north-west local centre of the Royal Meteorological Society (RMetS)

Associate Editor of Atmospheric Science Letters

Member of the RMetS National Meetings Committee

Reviewer for IJOC and ASL

Rapporteur at several RMetS and NCAS meeting

## Recent Awards and Recognitions

Best Poster Prize at RMetS Conference 2007

Solicited poster presentation at EGU 2007

## Peer Reviewed Publications

Russell, A. and McGregor, G.R. (2009) "A review of southern hemisphere atmospheric circulation: impacts on Antarctic climate and reconstructions from Antarctic ice core data" *Climatic Change*, in press.

Davis, J. C., Collier, C. G., Davies, F., Pearson, G. N., Burton, R. and Russell, A. (2009) "Doppler lidar observations of sensible heat flux and intercomparisons with a ground-based energy balance station and WRF model output" *Meteorologische Zeitschrift*, **18**, 155-162.

Russell, A., Vaughan, G., Norton, E. G., Ricketts, H. M., Morcrette, C. J., Browning, K. A. and Blyth, A. M. (2009) "Convection forced by a descending dry layer and low-level moist convergence" *Tellus A*, **61**, 250-263.

Russell, A., McGregor, G.R. and Marshall, G.J. "Eastern Antarctic Peninsula precipitation delivery mechanisms: process studies and back trajectory accuracy evaluation" *Atmospheric Science Letters*, **9**, doi:10.1002/asl.190.

Russell, A., Vaughan, G., Norton, E. G., Morcrette, C. J., Browning, K. A. and Blyth, A. M. (2008) "Convective inhibition beneath an upper-level PV anomaly" *Quarterly Journal of the Royal Meteorological Society*, **134**, 371-383.

Browning, K. A. and co-authors, including Russell, A. (2007) "The convective storm initiation project" *Bulletin of the American Meteorological Society*, **88**, 1939-1955

Morcrette, C. J., Lean, H., Browning, K. A., Nicol, J., Roberts, N., Clark, P. A., Russell, A. and Blyth, A. M. (2007) "Combination of Mesoscale and Synoptic Mechanisms for Triggering an Isolated Thunderstorm: Observational Case Study of CSIP IOP 1" *Monthly Weather Review*, **135**, 3728-3749

Russell A., McGregor G. R., and Marshall G. J. (2006) "340 years of atmospheric circulation characteristics reconstructed from an eastern Antarctic Peninsula ice core" *Geophysical Research Letters* **33**, L08702, doi:10.1029/2006GL025899

Russell A., McGregor G. R., and Marshall G. J. (2004) "An examination of the precipitation delivery mechanisms for Dolleman Island, eastern Antarctic Peninsula" *Tellus A*, **56**, 501-513

## Other Publications

Russell, A., Ricketts, H. and Knight, S. (2007) "Clouds" *Physics Education*, **42**(5), 457-465

Ricketts, H., A. Russell and E. Norton (2007) "Meeting Report: Thunderstorms" *Weather*, **62**(4), 107-108.

Browning, K. A. and co-authors, including Russell, A. (2006) "A Summary of the Convective Storm Initiation Project Intensive Observation Periods" *JCMM Internal Report No. 153*, 164pp.

Russell, A. (2005) "Southern Hemisphere atmospheric circulation impacts on eastern Antarctic Peninsula precipitation" *PhD thesis*, University of Birmingham, 264pp.

Russell, A. (2001) "A non-linear dynamical view of general circulation model verification: justification and feasibility" *MSc dissertation*, University of East Anglia, 54pp.

## Conference Proceedings

Russell, A. and G. Vaughan (2008) "Initiation of convection forced by a descending dry layer and low level moist convergence: a case study of CSIP IOP 9" *Proceedings of the 15th International Conference on Clouds and Precipitation*, July 2008, Cancun Mexico.

Russell, A. and G. Vaughan (2008) "An examination of capping inversions during COPS" *Proceedings of the 15th International Conference on Clouds and Precipitation*, July 2008, Cancun Mexico.

Russell, A., McGregor, G.R. and Marshall, G.J. (2003) "An examination of the precipitation delivery mechanisms at Dolleman Island, Antarctica, from ECMWF re-analysis and ice core data" *Preprint, Seventh International Conference on Southern Hemisphere Meteorology and Oceanography (ZICSHMO)*, March 2003, Wellington NZ; 141-143.