



The meeting is supported by funding from NCAS and the NERC AEROS project

## NCAS Composition-Climate Interaction Meeting, 24-25 March 2011 University of Leeds, School of Earth and Environment

#### ORAL PROGRAMME

Presentations in italic are invited. Note that the length of presentations is 15, 20 or 25 mins

THURSDAY 24th March					
12.45	BUFFET LUNCH, School of Earth and Environment foyer				
1.45	Carslaw/Pyle Welcome and aims of the meeting				
Session 1: Biosphere interactions (Chair: Ken Carslaw)					
2.00	Gerd Folberth	Met Office	Multidirectional Biosphere-Atmosphere Feedbacks in HadGEM2		
2.25	Dom Spracklen	Leeds	Climate change, wildfire and air quality		
2.45	Kirsti Ashworth	Lancaster	Air quality and climate impacts of biofuel cultivation		
3.05	Stephen Arnold	Leeds	Impacts of climate-driven land cover changes on tropospheric ozone		
3.30	BREAK				
Session	on 2: Aerosol processes (Chair: Bill Collins)				
3.55	Philip Stier	Oxford	How reliable are global observational constraints on model-based assessments of indirect aerosol effects?		
4.20	Graham Mann	Leeds	Applications of the UKCA aerosol model		
4.40	Ellie Highwood	Reading	Taking aerosols from composition to climate		
5.00	John Marsham	Leeds	Meteorology of dust uplift in summertime West Africa: implications for		
			climate and Earth system modelling		
5.20	Nicolas Bellouin	Met Office	Aerosol forcing in a GCM: Benefits of a sophisticated aerosol module		
5.50	POSTERS AND DRINKS (foyer area)				
7.00	DINNER (Buffet cu	rry in foyer and	coffee area)		
FRIDAY 25 <sup>th</sup> March					
Session 3: Tropospheric chemistry (Chair: Peter Braesicke)					
9.15	Alex Archibald	Cambridge	Investigating the impacts of HOx recyling in the oxidation of isoprene: Sensitivity studies of past, present and future atmosphere using the UKCA model		
9.40	Oliver Wild	Lancaster	Modelling future changes in surface ozone		
10.05	Roland Von Glasow	UEA	Process studies of chemistry-climate interactions		
10.20	Mat Evans	Leeds	Impacts of halogens on pre-industrial ozone		
10.35	Bill Collins	Met Office	UKCA in the HadGEM2 and HadGEM3 earth system models		
10.55	BREAK				
Session 4: Intercomparison studies (Chair: Oliver Wild)					
11.25	Martyn Chipperfield	Leeds	Composition-Climate Coupling in the Stratosphere: Recent Results from CCMVal Simulations		
11.50	Peter Braesicke	Cambridge	Chemistry-climate modelling with UM-UKCA: CCMVal-2 and beyond		
12.10	David Stevenson	Edinburgh	The CMIP5 ozone database 1850-2100: its construction and		
			corresponding tropospheric and stratospheric ozone radiative forcings		
Session 5: Discussion					
12.30	Luke Abraham	Cambridge	Getting started with UKCA Discussion about UK composition-climate modelling		
1.15	CLOSE				

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#### LIST OF POSTERS

Posters will be up for the duration of the meeting. There is a poster session on Thursday at 5.50pm

1	Alan Gadian	Cloud Brightening	
2	Anja Schmidt	Modelling volcanic aerosol: from aerosol microphysical processes to Earth system impacts	
3	Carly Reddington	EUCAARI-AEROCOM aerosol model inter-comparison of boundary layer nucleation over Europe	
4	Daniel Stone	Long-term measurements and modelling of OH and HO2 at a tropical marine location	
5	Gordon McFiggans	Regional coupled modelling in WRF-Chem	
6	Graham Mann	New particle formation and indirect climate forcing of regional SO <sub>2</sub> emissions	
7	Helen Macintyre	Heterogeneous chemistry in the troposphere	
8	Howard Roscoe	The NERC-funded project PSCs in UKCA – project rationale and definition	
9	James Levine	The ice-core record of atmospheric methane: composition-climate interactions on glacial-interglacial timescales	
10	Jo Browse	Modelling the Arctic aerosol seasonal cycle: the importance of wet deposition	
11	John Marsham	Meteorology of dust uplift in summertime West Africa: implications for dust modelling	
12	John Methven	Global conservation in tracer advection models and potential to influence the burden of long-lived chemical species	
13	Kathryn Emmerson	UKCA and the stratosphere: the eruption of Mt Pinatubo	
14	Kirsty Pringle	A new modal dust scheme for the UKCA model	
15	Lindsay Collins	Emulation of a global aerosol model to quantify CCN sensitivity to uncertain parameters	
16	Luke Abraham	Chemistry in the Unified Model: Climate-Chemistry Studies with UKCA	
17	Maria Russo	Representation of tropical deep convection in atmospheric models – Part 1: Meteorology and comparison with satellite observations	
18	Martyn Chipperfield	Climate Change and Ozone Depletion from N <sub>2</sub> O	
19	Paul Telford	Effects of climate-induced changes in isoprene emissions after the eruption of Mount Pinatubo	
20	Peter Knippertz	Towards an Improved Representation of Meteorological Processes in Models of Mineral Dust Emission	
21	Robert Thorpe	Evaluation of a year-long integration of AQUM-UKCA for a DEFRA model intercomparison	
22	Rosalind West	Estimation of the indirect radiative effects of aerosol on climate using the HadGEM-UKCA aerosol–chemistry climate model	
23	Ruth Doherty	Present-day and future ozone-related health impacts in the UK	
24	Ryan Hossaini	The contribution of natural and anthropogenic short-lived species to stratospheric bromine	
25	Sandip Dhomse	Solar response in tropical stratospheric ozone: A 3D chemical transport model study using ERA reanalyses	
26	Tom Breider	Global modelling of bromine chemistry in the troposphere: Observation comparisons and changes to ozone budgets and cloud condensation nuclei formation	
27	Wuhu Feng	Modelling studies of metallic layers in the mesosphere using a GCM model	
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