

UKCA Executive Meeting 2014-06-16
MRC London

Present: Luke Abraham (LA), Alex Archibald (AA), Matt Hort (MH), Philip Stier (PS), Ken Carslaw (KC), Nick Savage (NS), John Pyle (JP)

Apologies: Graham Mann (GM), Fiona O'Connor (FOC), Colin Johnson (CJ), Chris Jones (CDJ), Alistair Sellar (AS), Mohit Dalvi (MD)

10.30 Tea/Coffee

11am start

1) Action items from the last meeting

1) Science Plan:

a) Set-up videoconference for late May (26h-30th). Deadline for additions by 16th May.

b) Representative from Cambridge/Oxford/Leeds/Met Office to investigate possible VC options

c) Luke Abraham to set-up doodle poll for videoconference – **done, but did not happen**

d) John Pyle to finalise a version by end of April

e) Luke Abraham to set-up a shared dropbox folder for UKCA Exec to hold this document (and others) - **done**

2) Authorship policy

a) All groups to come up with a list of new developments with a narrative description for inclusion on the UKCA wiki:

Aerosols (Ken Carslaw)

Radiation (Ben Johnson)

Photolysis (Paul Telford)

Gas-Phase chemistry (Fiona O'Connor/Alex Archibald)

Transport/Nudging (Paul Telford/Mohit Dalvi/Nick Savage)

Wet deposition (Colin Johnson)

Dry deposition (Fiona O'Connor)

Clouds (Oxford)

Base model configuration (Fiona O'Connor)

b) All to work on additions/modifications to UKCA authorship policy by next meeting.

c) Share this document through dropbox also. - **done**

3) UKCA Management Organisation

a) Matthew Hort to circulate document. Alistair Sellar to circulate a similar document about NEMO. Both to be put in dropbox folder. - **done**

b) All to read Matthew Hort's document and add track-changes

c) John Pyle and Luke Abraham to get agenda out for next meeting ~2 weeks early

4) 5th Composition-Climate meeting
a) Ken Carslaw to find possible dates and locations. - **done**
Confirmed dates: 25th-26th March, Leeds

5) Action items from the last meeting
a) Fix the N96L85 vn8.4 CheT configuration in terms of chemistry performance (FOC) - **in progress**
b) JP and NS to follow-up on the UKCA collaboration agreement. - **in progress**
JP has contacted Howard Jones (University of Cambridge). Not sure what is happening. NS to send JP the details of the Met Office IPR contact.

6) Next UKCA Exec meeting
a) John Pyle to organise a venue for the 16th June in London. - **done**

2) Round table - oral round-up only please

Cambridge:

CCMI. Coupled-model. LiNOx (ab728 work). TTT Bias PEG. NOy work ongoing.

NS noted that the Priestly algorithm not actually conserving in New Dynamics. Mention to FOC/MD about getting fix for vn8.4.

Action: LA to contact FOC/MD

UKMO:

Hadley Centre:

Focus is currently on UKESM1, which implies that it is essential to get GLOMAP-mode working, and this is going well and is currently undergoing package testing. Most of the code has been renewed. There has also been improvements to the scavenging of aerosols. Work has also been ongoing on the offline oxidants scheme. There have also been numerous bug-fixes and tracer transport fixes.

Weather science:

There has been a move to netCDF emissions with extra diurnal cycles for sectors, and to FastJX for photolysis. There have also been several papers published. There is a need to extend netCDF code for aerosols as well (AS).

NWP needs to use off-line files of GLOMAP climatologies.

There are updates for TropIsop and updates required for PFTs for UKESM1 (needed for dry deposition). It would also be good to align GLOMAP & chemistry dry deposition. Also, it would be good to have a 4km AQUM and a 12km UKCA limited area configuration.

There are two new posts; one soon with FOC, and an external post to move to use GLOMAP not CLASSIC in AQUM.

The JWCRP post has not been filled. There is a possibility to outsource (e.g.

Manchester). For contracts less than a year, it may just be possible to appoint someone, although as this is JWCRP money this might be an issue. MH will look into this.

Leeds:

Work is going on on aerosol ancillaries for the NWP model, using the perturbed parameter model for this.

GM is working on an AeroCom paper. Sandip Dhomse's stratospheric aerosol paper has been submitted and is under review.

The 1960 hindcast being redone for sensitivity studies and is showing some nice results. There are some interesting differences with radiation, where there are matches at end and not at start. This could be issue with measurements.

Graham going to CSIRO to work on SOA (GLOMAP-mode is working in their regional model). KC to ask GM to talk to CBG about this.

Work on nitrate with Steve Rumbold & FOC.

Oxford:

Rosalind West's paper has been accepted.

Dan Partridge has done lots of work to get a vn8.4 branch working and ready. He has submitted some data to AeroCom. There may be some biomass burning work for AeroCom, and Nick has done some evaluation.

We have started to consider the inclusion of aerosol backscatter.

The CLARIFY measurement campaign has been funded.

Paul Fields is writing a proposal about aerosol convection interaction (July round).

Future climate for Africa round we intend to submit something on dust (August).

Colin Jones UKESM Horizon 2020 through to 2nd round.

3) Report from Code Management Group (CMG) - NS to lead

The CMG haven't had a meeting since the last Exec meeting.

We have not yet reached an agreement on releasing standard jobs.

LA thinks releasing vn8.4 is worth doing.

Action: NS to talk to LA about moving CMG forward.

9.1 code freeze and will be released soon. There are changes to STASHmaster files, as well as a number of changes required for GA7.0.

LA will be taking over from NS as code owner from July.

4) Report from Chemistry Working Group (CWG) - AA to lead

The CWG is made up of people from Cambridge and the Met Office. The aim is to steer the direction of the chemistry, but is currently working in reactive mode on a framework in providing inputs into gas-phase chemistry. Meetings are held electronically.

Currently the groups is just made up of developers, but this could be made broader. The aim is to pull science out of the CMG. There are some people who are involved with ACITES who may be able to contribute.

5) Science Plan - JP to lead

The current draft of the Science Plan does not mention NCAS, which needs to be amended. It was thought that the structure of the document needed to be changed, with the List of Projects being removed and made into a separate document (or web page). There could be a higher-level document, with a secondary document listing named people doing particular tasks. In this way it would be possible to match resources against needs.

Action: LA to check version and put resources in.

Action: JP to do iterate and contact individuals - done by September.

6) Management Structure - MH to lead

Due to the reduced attendance (particularly from the Met Office Hadley Centre) at this meeting, it was agreed that it would be difficult to agree a decision.

The last document that could be found on this topic relating to UKCA was a 2008 Research and Development Plan.

There are more people who are starting to be involved, and there needs to be a mechanism to give them a voice. The Exec has been more of a “listening committee”, rather than having a checklist of milestones and deliverables. The various working groups also have no formal set of deliverables. Things often “fall through the cracks” (e.g. moving UKCA outside of the UM, or for things which are not UKCA directly) and the focus of most of the developers has been on a climate configuration.

There is also a problem of resources – there are only 2 FTE people (funded by NCAS) for core development work. The rest of the resources come from short-term projects.

There are a number of models that UKCA could follow, e.g.

- A community model, where members of the board are elected
- A consortium, where there is a fixed group

NEMO and GEOS-Chem are different examples of possible structures.

While a User Group might not be able to attract outside talent, a Science Advisory Group (SAG) may be able to do so. There could then be a higher group that examines its recommendations. This hasn't been done in the past due to a lack of

resources.

Another issue is the UKCA collaboration agreement (covering IPR issues). Currently all institutions represented by the current membership of the UKCA Exec have signed it, but new members would also need to do so. If UKCA joins the JWCRP, this may then be covered by the JWCRP agreement, which is broader. However, this may not cover UKCA developments.

It was decided to initially focus on creating a Users and Developers Group (UDG), leaving the possible creation of a SAG for a later time, as we would not want too many groups, as this could become too bureaucratic. However, more structure is needed, as UKCA is a big project.

If a chemistry UDG is organised for September, it may be possible to organise a joint chemistry-aerosol UDG after the Composition-Climate Interactions meeting in Leeds (March 2015). If this is too soon, something could be done in 2016.

Action: LA to make UKCA Exec minutes public on the wiki

Action: AA to set up Chemistry Users and Developers Meeting (possibly at Imperial)

7) Publication Policy - KC to lead

This discussion focused on the draft Publication Policy document written by KC.

Some people were unsure about the “opt-in” option for Authorship. There was also some discussion as to what should be classed a “new development”.

Questions that were raised were:

- Should work that has been written up be excluded from this?
- How long is a development “new” for? Should it be longer than 6 months?

8) Training - LA to lead

LA has been funded to run a UKCA training course, under the NERC Advanced Training: Short Course scheme. The grant was written with support from AA, GM, and JP, as well as with help from Louise Whitehouse in NCAS Leeds. £25,000 has been provided to fund 20 places, and the course is planned to take place on the 5th-9th January in Cambridge.

9) A.O.B.

10) Date of next meeting

4pm finish