Minutes of NCEO ORAC Meeting

Oxford, 21st April 2009

Present: Chris Arnold, Don Grainger, Haiyan Huang, Caroline Poulsen, Andy Sayer, Richard Siddans, Gareth Thomas

1. Minutes of previous meeting accepted.

2. GEWEX
   - Chris has produced some (hopefully final) NetCDF files for GRAPE-GEWEX which Andy has uploaded to the AOPP website. Caroline is going to check through them before contacting Claudia Stubenrauch. Chris is to experiment with different resolutions for the MIPAS data and produce the files for that (within a few weeks)

3. GRAPE
   - GRAPE scripts were lost again due to rogue behaviour of clean_nodes.sh. Not too much has been lost: Andy is going to redo his updates in a slightly different way for AATSR. At the moment RTMs are processing although we need the new disks to be able to do much more. Andy/Caroline to ask Peter Chiu again whether the machine has arrived. Andy is also going to produce and circulate a road-map to GRAPE version 4 for comments.

4. GlobAerosol:
   - Don is organising the next progress meeting.

5. ADIENT
   - Some complications in comparisons with GLOMAP because of missing aerosol types in their model/changes in file formats.

6. Non-plane-parallel cloud study: Phil Watts may attend next ORAC meeting in May.

7. Naming
   - After some discussion the following conventions were decided:

     ORAC processed data will be named
     ORAC-AATSR
     ORAC-SEVIRI
     ORAC-ATSR/2
     …

   - This ensures paper or web searches on instrument names find us while we have continuity of naming independent of funding. It is suggested that existing papers in preparation honour this e.g.

     Thomas, G.E., C.A. Poulsen, A.M. Sayer, S.H. Marsh, S.M. Dean, E. Carboni, R. Siddans, R.G. Grainger and B.N. Lawrence, The ORAC-ATSR-2 aerosol retrieval algorithm for GRAPE, submitted to AMT, 2009.

     Poulsen, C.A., E. Campmany, S. Dean, G. Ewen, A.M. Sayer, G.E. Thomas, R.G. Grainger, R. Siddans, B. Lawrence and P. Watts, The ORAC-ATSR-2 cloud retrieval algorithm for GRAPE, in preparation for the RSE AATSR special issue, 2009.

Sayer, A. M., G. E. Thomas, R.G. Grainger, E. Carboni, C. T. Mutlow, Adjustment of MODIS BRDF products for use with the ORAC-AATSR aerosol retrieval and application to the Amazon, in preparation for the RSE AATSR special issue, 2009.

Thomas, G.E. et al., The GlobAEROSOL ORAC ATSR-2 and AATSR global aerosol dataset: validation and long term trend analysis, in preparation for the RSE AATSR special issue, 2009.

- Finally, our month meeting name will be funding agent dependent so that GRAPE Meetings are now NCEO-ORAC Meetings. These are open to the full UK NCEO community.

8. Student progress:

- Chris has written some code to produce piecewise linear LUT gradients (as opposed to flat values). It removes a lot of the artefacts in retrieval histograms. Next he is going to look at Gareth's cubic spline code which will give a smooth continuous derivative.

- Haiyan has been writing her paper on the relationship between aerosol properties and wind speed/direction. After this she will begin to work on incorporation of the IR channels into the aerosol retrieval (the aim to get an SST product with an error of 0.2 K or better). Don showed that this demanded a radiometric accuracy of better than about 0.3 %.

9. Publications:

- ORAC-ATSR-2 aerosol algorithm. Now online on AMTD.

- ORAC-ATSR-2 aerosol validation. Gareth has made lots of progress (all over sea). Good validation against AERONET. Comparison of seasonal cycles with GACP AVHRR data. Looked at seasonality and trends on a regional basis; some differences with AVHRR, think ours may be more true-to-life. Will circulate draft before next meeting.

- GlobAerosol trends: No progress.

- ORAC-ATSR-2 cloud algorithm: Draft to be circulated within a week.

- ORAC-ATSR-2 cloud validation: No progress.

- Land surface/Amazon: Andy has finished thesis corrections (pending checking) and will start on this next; will have something to show at next meeting. Want to reprocess and extend dataset; at present have August 2002-August 2007.

- Elisa's dust comparison. Elisa is at EGU giving a talk. Andy's ORAC currently looks a bit worse than GlobAerosol-ORAC; intending to reprocess with spheroid dust model before paper.

- It was noted that the deadline for the RSE special issue is June so that paper drafts need to be available by the next meeting.

10. Any other business:
Next meeting: Tuesday 19th May, 10 am, Oxford (DG: sorry, can’t do RAL next month).