ORAC meeting minutes

25th February 2009, 10:15 am, Brewer Room, AOPP

Present: Chris Arnold, Elisa Carboni, Don Grainger, Caroline Poulsen, Andy Sayer, Richard Siddans, Gareth Thomas. Katie Lean and Andrew Stoter were present to discuss their results.

1. Minutes of previous meeting
   - Andy aimed to have GRAPE level 3 processed by this meeting. This has been done at 1 degree and 2.5 degree resolutions. The level 2 dataset has had the cloud water path fixed in the output (though not in the retrieval code itself) and the user guide has been updated. This will soon be circulated before the dataset is updated on the BADC (to 'Version 3') and an email sent to users.

2. Progress on extra GRAPE disk space
   - A 16 TB system (usable ~12 TB) will be ordered imminently and delivered to RAL. Andy to get this done; need to complete RTO form.

3. GlobCloud meeting, Berlin, March
   - Caroline has a 30 minute talk and Andy a poster. Chris is to try to get a second poster. Want to do our best to really sell the data. Caroline and Andy to circulate talk/poster drafts over coming weeks. Ideally we want one year of AATSR data processed to show; Andy is attempting to modify the code and thinks this is a reasonable goal. Suggestion is to process 2008. Caroline is to download the required ECMWF data.

4. Student progress:
   - Haiyan: Absent. Has been looking at wind speed, surface reflectance and optical depth. Interesting cycle in optical depth over the North Pacific during the summer also seen in MODIS for unknown reasons (possibly circulation).
   - Chris: Has got ATSR-2 forward-view cloud retrieval working and will circulate plots. With Andy has also (we think) managed to fix the 'snow flag crashing' bug in GRAPE. GEWEX data online although possible problems with coverage identified; data is being rerun (problem of missing orbits looks like it has been fixed). Some discussion about whether should be smoothed/histograms created over a larger area.
   - Andy Smith: Absent. Has created aerosol LUTs for spheroid desert dust (class A36). Comparisons with existing dust class (A03) needed for ADIENT report. Andy (Sayer) is modify code to use new LUTs and will run data as requested.
   - Kaite: MPhys working on aerosol class flags. Has been using ATSR band differences/ratios and spatial homogeneity tests. Good progress in identifying biomass burning and desert dust aerosol; also working on pollution. Intention to incorporate into the aerosol retrieval.
   - Andrew: Using stereo-view geostationary data (MSG-SEVIRI and similar instrument on MeteoSat-5) to determine height of Karthala eruption in 2005. IR channels used as better contrast than visible; additionally, clouds cause saturation the visible signal.
   - Helen: Absent. Looking at improved error estimates for MODIS data. Temporal variability on 8-day and shorter scales, for different surface types (crops, trees, deserts, mountains, snow, and cities). Andy to add as option for AATSR retrieval.

5. Report on EUMetSat Cloud Workshop, Locarno
   - Chris attended; Andy intended to but snow stopped travel (on two attempts!). Meeting was an intercomparison of cloud retrievals, mostly from SEVIRI. Discussed in more depth at RAL last week.

6. Report on QUANTIFY meeting, Prague
   - Ship track talk went down well and there's an opportunity for extra funding to extend the work by a couple of months.
   - Elies' paper accepted by ACP

7. Multi-layer cloud study
   - Also discussed in depth at RAL last week. Report on RAL ftp site. Phil Watts will send code to do comparisons of data with CloudSat data.

8. Publications:
   - Grape aerosol algorithm: Intending to resubmit to AMT (new journal).
   - Grape aerosol validation: Comparing with AVHRR. Done work on removing multiple a priori values from monthly means.
   - Grape cloud algorithm (RSE special issue): No progress.
   - Grape cloud validation: No progress.
   - Elisa's dust comparison: Waiting for input (algorithm descriptions) from other groups. Aim to finish draft by next meeting.
   - Andy's thesis papers (including land albedo/Amazon for RSE special issue): No progress, but passed viva and has corrections. Following these the RSE paper will get priority.
   - GlobAerosol algorithm (RSE special issue): (A)ATSR data should be available but isn't; Gareth to check this then Don to ask GMV where it is if it's missing.

9. Any other business
   - Elisa/Don spoke had a meeting with Suzi Ebmeier & Tamsin Mather in Earth Sciences. Suzi has been using SAR data to look at bulges in the ground before volcanic eruptions. She is now interested in the effect of volcanic ash on cloud. Elisa and Richard may process some SEVIRI data for her.
   - Elisa also had some correspondence (not sure who) about dust sources in Africa.
   - Suggestion to get some good (A)ATSR images of the UK/Europe for PR purposes. These could be combined with the 'shaded relief' projections Richard has used. Andy and Gareth to investigate and send anything found to Richard.
   - Caroline spoke to Tim Nightingale; the ITT for OE SST retrievals is coming out soon. We should consider possible international partners for a bid.
   - Przemek from Earth Sciences is coming to talk to Andy, Gareth and Elisa about his correction of LandSat images for aerosol in the Amazon.
   - Andy has been thinking about possible developments to the aerosol retrieval algorithm, namely the idea of having LUTs at two surface pressures and interpolating between them (has been previously discussed) and a sensitivity study on the impact of the assumption of 50% relative humidity in the aerosol models. These might be something for Haiyan and/or Andy Smith to look in to (unless Andy Sayer finds time).

10. Date of next meeting
    - Set for Tuesday, March 31st, RAL, 10 am.