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GHG-CCI Quarterly Status Report (QSR) #6

Reporting period: Jan-Mar 2012

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GHG-CCI QSR Jan-Mar 2012

1. Project Status

The GHG-CCI project (www.esa-ghg-cci.org) has made significant progress during the reporting period. The project is on track in terms of meeting its objectives. No major problems have been encountered w.r.t. meeting the schedule. The deadline for submitting the final satellite derived GHG-CCI data products to the Round Robin (RR) Data Package (RRDP) was end of February 2012 and this deadline has been met by all project partners. The GHG-CCI RR exercise will be finished end of August 2012 with a well justified decision which of the algorithms perform best and will be used to generate the Climate Research Data Package (CRDP), which will be available in March 2013.

No major problems have been identified w.r.t. quality and quantity of the required input data needed for ECV generation with one exception: It has been identified that the known problems with the SCIAMACHY Level 1 version 7 consolidation "u" data (L1v7/u) result in significant biases of the SCIAMACHY XCO₂ and XCH₄ retrievals. This affects in particular all retrievals after 2009, where no L1v6 data are available (note that the previous L1v6 data were not affected by this issue). Selected L1v7 consolidation "w" data (L1v7/w) have been processed at IUP, Univ. Bremen, and the analysis has not revealed any obvious problems indicating that the identified problem has been solved for L1v7/w. All SCIAMACHY data therefore have to be re-processed as soon as the new L1v7/w data set is available at IUP.

2. Main progress during last 3 months

Focus of the reporting period was to compile the final version of the Round Robin Data Package (RRDP). The deadline was 29 Feb 2012 and has been met by all partners. This data set is currently being analyzed (see item 3. below). In addition, a number of other deliverables have been generated and delivered in time: a first update of the ATBD (ATBDv1) and of the Product Specification Document (PSDv2). Furthermore the validation data base has been updated (DBT3). All deliverables have been delivered as planned and are available on the GHG-CCI website. The GHG-CCI project has been presented at several conferences such as the "GOSAT Workshop 2012" in Tokyo, Japan, end of February and the "Planet under Pressure" conference in London, UK, end of March. A GHG-CCI status presentation has also been given at the MACC-II General Assembly end of February at ECMWF. Note that GHG-CCI delivers certain satellite data products to MACC-II such as SCIAMACHY CO₂.

3. Next Steps 3-6 months

The final evaluation of the RRDP will be carried out from March – August 2012. In August 2012 a well justified and documented decision will exist which of the currently used algorithms will be used for generating which of the GHG-CCI CO₂ and CH₄ satellite derived data products. The next Progress Meeting (PM4) is scheduled for 3-4 May 2012 and will take place at Univ. Leicester. At that meeting initial comparison results will be presented and discussed. If possible the final RR decision will be made already at that meeting. If this is not possible it will be identified which analysis still needs to be done in order to come to a clear and well justified decision such that the August 2012 deadline for finishing the RR exercise can be met.

*** End of Report ***