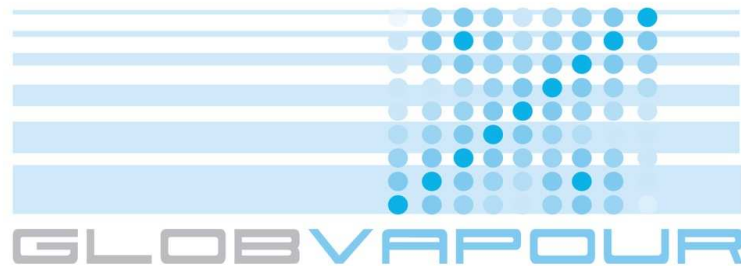




DUE GLOBVAPOUR

Monthly Progress Report

Dezember 2011 / January 2012



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ESRIN/Contract No.: 22696/09/I-OL

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Monthly Progress Summary - ESA DUE GlobVapour

ESRIN/Contract No.: 22696/09/I-OL

Reporting Period: 01.12.2011 - 31.01.2012

Main Accomplished Actions:

- All final products have been processed, validated and documented.
- The processing system has been finalised and accepted during Acceptance Review.
- Application at user institute were presented at UCM3.
- All WPs have been finalized.

Activities, Achievements and Status - Phase II**Management and Coordination****WP 002 - Management and Coordination (M. Schröder)**

- The final project meeting, the acceptance review and the 3rd User Consultation Meeting was organised and carried out on 24 January 2012.
- Together with partners several management aspects needed to be addressed. Among them were decisions on late reprocessing events, refinements of activities related to AATSR processing and the evaluation of climate models.
- All remaining deliverables (here, documents) have been drafted and submitted to ESA and partners for review and last feedback.
- Drafting of FPR.
- The WP has been finalised. Note that review comments on deliverables are pending.

WP 020 - Promotion (M. Schröder)

- Final update of GlobVapour webpage has been prepared.
- The last version of the Newsletter has been drafted.
- During UCM3 planning the project was in close contact with the user community. On UCM3 valuable feedback from users was received.
- The WP has been finalised.

Creation of Diagnostic Data Set and validation tools**WP 210: Collection and procurement of validation data (M. Schröder)**

- The WP has been finalised.

WP 220: Collection and procurement of satellite data (M. Schröder)

- The WP has been finalised.

WP 230: Development of validation tools (M. Schröder)

- The WP has been finalised.

Development of Prototype Product

WP 310: Development of GOME/SCIAMACHY/GOME-2 retrieval scheme (D. Loyola)

- Analyzing differences between Level 3 GOME-2 products using the full 1920 km and 960 km swath.
- Analyzing differences between L3 SCIA and GOME-2 products caused by cloud flagging and viewing angle calculations.
- The WP has been finalised.

WP 320: Development of MERIS retrieval scheme (R. Preusker)

- The WP has been finalised.

WP 330: Development of SSM/I - MWR retrieval scheme (M. Schröder)

- WP has been finalised.

WP 340: Establishment of consistency of MERIS and SSMI (M. Schröder)

- WP has been finalised.

WP 350: Development of AATSR retrieval scheme (R. Preusker)

- The WP has been finalised.

WP 360: Assessment of existing IASI retrieval schemes (M. Schröder)

- Final results have been produced.
- The main results were summarised in an IASI assessment report. It is planned to submit a summary to the GEWEX News for the May issue.
- WP has been finalised.

WP 370: Development of merged IASI/SEVIRI profile product (M. Schröder)

- WP has been finalised.

WP 380: Production and validation of prototype data sets (M. Schröder)

- The WP has been finalised.

WP 390: Development of processing environment (U. Krämer)

- The WP has been finalised.

Processor Development and Test Product

WP 410: Development of GOME/SCIAMACHY/GOME-2 processing system (D. Loyola)

- Delivery of UCAS version 3.01 implementing sensor specific offsets and minor changes in metadata processing.
- Delivery of UCAS version 3.02 solving a minor problem with the tcwv_stddev field in the netCDF products.
- The WP has been finalised.

WP 420: Development of MERIS-SSM/I processing system (M. Schröder, R. Preusker)

- Updates to the processing system were carried to increase computational efficiency. The product and its quality was not affected.
- The WP has been finalised.

WP 430: Development of AATSR processing system (R. Preusker)

- The WP has been finalised.

WP 440: Development of IASI processing system (M. Schröder, R. Saunders)

- The WP has been finalised.

WP 450: Development of IASI-SEVIRI processing system (M. Schröder)

- The WP has been finalised.

WP 460: Production and validation of test data set (M. Schröder)

- The WP has been finalised.

WP 470: Development of stand alone processing system (U. Krämer)

- Reception, integration and test of MERIS L2 python implementation, verification mainly successful. Issue raised in one processing case.
- Processing of one month of test data with SSM/I, MERIS and GOME chains with stand-alone processing system and the integrated processors.
- Update of GOME and MERIS processors in two cycles, verification of output by partner
- Test and integration of updated processors and reconfiguration of processing system.
- Distribution of outputs to partners for verification.
- Preparation of software user manual, installation instructions and preparation of acceptance test, also with definition of detailed test procedures.
- Finalisation of documentation.
- The WP has been finalised.

Development of Final Product

WP 510: Production and validation of final data set (M. Schröder)

- Final GlobVapour products have been validated with results summaries in related PVRs.
- The AATSR product has been validated and the results have been presented at FPM and summarised in a TN.
- The evaluation of the SEVIRI+IASI product has been refined by analysing the uncertainty on grid basis. Results were presented at FPM.
- An intercomparison TN using GlobVapour final products has been drafted.
- The WP has been finalised.

WP 520: Update of PS and System Delivery and Test Application at ESRIN (U. Krämer)

- Dry run by independent test engineer as FAT at BC.
- Acceptance review at ESRIN parallel to the final meeting at 24.01.2012. Life update of the GOME processor. Acceptance Review has been passed.
- Delivery of disk with VM and one month of test data, ready to use.
- The WP has been finalised.

Scientific Exploitation

WP 610: Comparison of GlobVapour Products to Climate Model Output (M. Ringer)

- Collection and pre-processing (e.g. regridding) of observational data sets for model comparisons, including GlobVapour SSMI/MERIS products, SSM/I (RSS), and ERA Interim and MERRA reanalyses.
- As above for CMIP5 model output from the CMIP5 data portal (15 currently-available models).
- Initial comparisons for 2003-2008 using GlobVapour monthly mean products to demonstrate use of GlobVapour TCWV products for climate model evaluation.
- Preparation of presentation on this work for GlobVapour FPM.
- The WP has been finalised.

WP 620: Alternative Ways of Climate Model Evaluation (M. Ringer, R. Saunders)

- It has been mutually agreed between ESA and the project to shift resources to the WP 610.
- The WP has been finalized.

WP 630: Establishment of the Scientific Exploitation Plan (R. Saunders)

- Drafting of SEP finalised.
- The WP has been finalized.

Next Steps and Schedule

- Answer review comments on deliverables.
- Release of Newsletter Vol. 4 and final update of webpage.

Achievements

- Final GlobVapour products processed, validated and fully documented.
- All deliverables have been drafted.
- The processing system has been finalized. After successful Acceptance Review the processing system was provided to ESA.
- UCM3 was carried out and the project again received valuable feedback from users. Also, applications at user institutes were presented.
- GlobVapour products have been compared to output from 15 CMIP5 models. Results were presented at FPM and are part of SEP and FPR.

Problems encountered and solutions proposed

- From the two full time positions at DWD only a $\frac{3}{4}$ position is left for the period Dec 2011 - Jan 2012. A continuation beyond Jan 2012 is not possible.
- Review comments are pending, and in view of the previous point this can be critical if significant updates are requested.
- Even for final products a sequence of processing and validation can be expected and actually occurred in the course of the project. It was consensus that the project aims at increasing quality to the expense of delays.