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GHG-CCI Quarterly Status Report (QSR) #14

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GHG-CCI QSR Jan-Mar 2014

1. Project status

GHG-CCI Phase 1 has been successfully completed with the Final Presentation, which took place at ESRIN on 30 Oct. 2013. The contract for Phase 2 has been signed by ESA and is currently being checked by the Legal Office of the University of Bremen (see also item 3. below).

2. Team evolution

In order better exploit the generated data products the number of officially engaged users have been significantly extended by enlarging the GHG-CCI Climate Research Group (CRG) by adding team members from MPI-BioGeoChemistry (Jena), Univ. of Edinburgh, SRON, and Empa.

3. Kick-off and Phase 2 objectives

Despite the fact that the new contract has not yet been signed by both parties, the project team conducted a successful Phase 2 Kick-off Meeting on 17 March 2014 and agreed on the official start date for Phase 2, which is 1st March 2014.

Focus of Phase 2 will be to (i) extend the satellite-derived GHG time series (including future sensors such as OCO-2 and possibly S5-P), (ii) to improve the quality of the existing data (by algorithm improvements and re-processing) and (iii) to use the data products to address important science questions related to the sources and sinks of the two greenhouse gases CO_2 and CH_4. The latter aspect will be addressed by extending the CRG (see above) but also by ongoing dedicated activities by the data provider (e.g., see publications). The initial focus of the project (currently ongoing) will be to further improve the data product formats in order to meet all CCI requirements including those which have been formulated only recently.

4. Project outreach/promotion of data sets and publications

Data & figures: Please see http://www.esa-ghg-cci.org/ -> CRDP

Latest press release: 4 Sept 2013: Please see http://www.esa-ghg-cci.org/ home page.

New publications in 2014:

Basu, S., Krol, M., Butz, A., et al., The seasonal variation of the CO2 flux over Tropical Asia estimated from GOSAT, CONTRAIL and IASI, Geophys. Res. Lett. (accepted article), doi: 10.1002/2013GL059105, 2014.

Chevallier, F., Palmer, P.I., Feng, L., Boesch, H., O'Dell, C.W., Bousquet, P., Towards robust and consistent regional CO2 flux estimates from in situ and space-borne measurements of atmospheric CO2, Geophys. Res. Lett. (accepted article), DOI: 10.1002/2013GL058772, 2014.

Schneising, O., M. Reuter, M. Buchwitz, J. Heymann, H. Bovensmann, and J. P. Burrows, Terrestrial carbon sink observed from space: variation of growth rates and seasonal cycle amplitudes in response to interannual surface temperature variability, Atmos. Chem. Phys., 14, 133-141, 2014.

Wecht, K.J, D.J. Jacob, M.P. Sulprizio, G.W. Santoni, S.C. Wofsy, R. Parker, H. Bösch, and J. Worden, Spatially resolving methane emissions in California: constraints from the CalNex aircraft campaign and from present (GOSAT, TES) and future (TROPOMI, geostationary) satellite observations, Atmos. Chem. Phys. Discuss., 14, 4119–4148, www.atmos-chem-phys-discuss.net/14/4119/2014/, doi:10.5194/acpd-14-4119-2014, 2014.

Full list please see: http://www.esa-ghg-cci.org/ -> Publications

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