

Michael.Buchwitz@iup.physik.uni-bremen.de

GHG-CCI Quarterly Status Report (QSR) #17

Reporting period: Oct-Dec 2014; Version: 24 Nov 2014

GHG-CCI QSR Oct-Dec 2014

1. Project status

GHG-CCI Phase 2 has started 1st of March 2014. The second progress meeting has been held on 3-4 Nov. 2014. Progress as planned. No major problems have been identified.

2. Data gathering and quality for Phase 2

The first Phase 2 data set, CRDP#2, generated incl. documentation and already made available via GHG-CCI website (<http://www.esa-ghg-cci.org/> -> CRDP (Data)). Quality assessments ongoing (PVIR and CAR expected for March/April 2015).

3. Evolution in product specification

New PSD generated (PSDv3): http://www.esa-ghg-cci.org/index.php?q=webfm_send/160

4. Cross-CCI cooperation

Use of Aerosol-CCI data products to investigate potential correlations with GHG-CCI products to find out to what extent the GHG-CCI products suffer from scattering related errors (via new funded optional workpackage).

5. International Scientific cooperation

Various primarily in the context of common publications (see link to publications list given below), close co-operation with GOSAT science team at JAXA/NIES and NASA's OCO-2 science team. Close co-operation also with TCCON team and with complementary project EU Horizon2020 MACC-III and the US CO₂ Earth Science Data Record (ESDR) project.

6. User impact with Phase 1 products and feedback

See 1st Climate Assessment Report (CARv1.1, http://www.esa-ghg-cci.org/index.php?q=webfm_send/153). Several peer-reviewed publications (see link to publications list given below). Number of users (mid 2011 – mid October 2014): approx. 280. Invitation to present key research results at AGU Fall Meeting, San Francisco, 2015.

7. Project outreach/promotion of data sets and publications

Reuter, M., M. Buchwitz, A. Hilboll, A. Richter, O. Schneising, M. Hilker, J. Heymann, H. Bovensmann and J. P. Burrows, Decreasing emissions of NO_x relative to CO₂ in East Asia inferred from satellite observations, Nature Geoscience, 28 Sept. 2014, doi:10.1038/ngeo2257, pp.4, 2014.

Related ESA webstory: "Good and bad news for our atmosphere". Link:

http://www.esa.int/Our_Activities/Observing_the_Earth/Space_for_our_climate/Good_and_bad_news_for_our_atmosphere

Related DLR press release (in German): "Neue Klimastudie belegt Umwelt-Bemühungen in Ostasien: Satellitenmessungen liefern genaue Analyse von Stickoxid- und CO₂ Verteilung". Link: http://www.dlr.de/dlr/de/desktopdefault.aspx/tabid-10081/151_read-11708/year-all/#/gallery/16617

Schneising, O., J. P. Burrows, R. R. Dickerson, M. Buchwitz, M. Reuter, H. Bovensmann, Remote sensing of fugitive methane emissions from oil and gas production in North American tight geologic formations, Earth's Future, 2, DOI: 10.1002/2014EF000265, pp. 11, 2014.

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

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