

Change log for GHG forecast CY40R1 (g6dd)

The MACC NRT high resolution CO₂ cyclic forecast (experiment **g6dd**) was started on 2014-08-29 to make use of a new tracer mass fixer suitable for high resolution. The experiment was initialized from the previous operational high resolution forecast g15h. Note: there were no CO₂/CH₄ analyses available in NRT when experiment was re-initialized. Main features are:

- runs in near-real-time
- 120 h long forecast from 00UTC
- IFS cycle 40R1
- Coupled to CTESSEL Net Ecosystem Exchange surface fluxes.
- EDGARv4.2 anthropogenic emissions - scaled from 2008 with estimated and climatological trends.
- GFASv1.2 fire emissions
- Takahashi et al. (2009) CO₂ air-sea CO₂ flux climatology.
- IFS model resolution T1279L91
- operational meteorological analysis resolution
- time period 20140829 -
- branch: paf_SB40R1_MACC_GHG_newmassfixer_cray_extradiag
- New tracer mass fixer implemented based on Bermejo and Conde (2002) scheme, replacing the global proportional mass fixer used in previous operational forecast (g15h)

Changes introduced during production affecting the quality of the products

real date	exp date	description of change
20140911	2014082900	Start of new high resolution NRT CO ₂ FC experiment with new tracer mass fixer (replacing g15h)
20140930	2014093000	Change in fire emissions from experiment fx5h to g6ek

Flux updates

real date	expdate	description of change