Japan Meteorological Agency

News Release

9 September 2014

Record Greenhouse Gas Levels Impact Atmosphere and Oceans

— World Meteorological Organization Release of WMO Greenhouse Gas Bulletin No. 10 —

On 9th September 2014, the World Meteorological Organization (WMO) released WMO Greenhouse Gas Bulletin No. 10 – a publication reporting on the latest global situation of major long-lived greenhouse gases (LLGHGs) in the atmosphere. This edition is also the first to contain information on the long-term trend of global ocean acidification as determined in collaboration with oceanographic experts.

The Bulletin reports that the annual average global abundance for all three major LLGHGs (carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O)) reached record highs in 2013. In addition, the annual average increase in CO_2 concentrations from 2012 to 2013 was the highest in the last 30 years at 2.9 ppm. As a consequence of this increase, water in oceans globally has become more acidic (less alkaline) over the last few decades.

In collaboration with data providers worldwide, the WMO World Data Centre for Greenhouse Gases (WDCGG) conducted the global analysis of the atmospheric major LLGHGs reported in the Bulletin. The Japan Meteorological Agency (JMA) has contributed to WMO activities by functioning in a WDCGG capacity since 1990. Time-series data based on analysis of the three major LLGHGs are available at the links below. JMA also contributes to ocean acidification analysis with long-term observation data collected by its research vessels.

Links

- WMO press release with GHG Bulletin No. 10 (WMO website) (http://www.wmo.int/pages/mediacentre/press_releases/pr_1002_en.html)
- WMO/GAW Greenhouse Gas Bulletin (WMO website)* (http://www.wmo.int/pages/prog/arep/gaw/ghg/GHGbulletin.html)
- World Data Centre for Greenhouse Gases (WDCGG) (http://ds.data.jma.go.jp/gmd/wdcgg/pub/global/globalmean.html)
- Oceanic carbon cycle information from JMA (http://www.data.jma.go.jp/gmd/kaiyou/english/oceanic_carbon_cycle_index.html)

* The cover contents were revised . (12 November 2014)