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## Subject: Transfer of the reactive gas archiving from JMA to NILU

Dear Contributors of reactive gas data,

We thank you for your previous contributions of reactive gas measurement data and metadata to the World Data Centre for Greenhouse Gases (WDCGG) hosted by the Japan Meteorological Agency (JMA) in Tokyo. This data centre operates in support of the Global Atmosphere Watch (GAW) Programme of the World Meteorological Organization (WMO) and provides many important services and products to WMO Members and the scientific community.

From January 1st 2016, the responsibility related to archiving of reactive gases measurement data is transferred to the newly established **GAW World Data Centre for Reactive Gases (WDCRG)** hosted by the Norwegian Institute for Air Research (NILU). The reactive gases to be hosted at WDCRG are:

- SO<sub>2</sub>,
- Oxidized nitrogen species (NO, NO<sub>2</sub>, NO<sub>x</sub>, NO<sub>y</sub>),
- O<sub>3</sub> (tropospheric)
- VOCs
- (list to be extended as additional variables are added to the monitoring efforts)

WDCGG will continue its efforts toward archiving of the long-lived greenhouse gas observational data and will remain the primary archive for Carbon Monoxide (CO) data (a reactive gas by definition, but of key importance in relation to carbon cycle interpretations). NILU already hosts the GAW World Data Centre for Aerosols (WDCA), and this transfer will result in the joint archival of short-lived gaseous and particulate atmospheric constituents in one single database, using the same data formats, meta-data definitions and timelines for data submission. It is expected that such unified data handling will much better address the needs of air quality/health communities.

The WDCRG will be implemented like the WDCA based on the EBAS relational database (<u>http://ebas.nilu.no</u>) developed and operated by NILU<sup>1</sup>. EBAS is also used to host data from other international programs and projects (EMEP, ACTRIS, AMAP, OSPARCOM, HELCOM). As many of the data offered by WMO GAW sites are also submitted under the protocols of these other international programs, EBAS allows single point submissions, thus reducing efforts for data providers with association to multiple frameworks . Data submissions of reactive gas data originating from GAW stations (as listed in GAWSIS, <u>https://gawsis.meteoswiss.ch</u>) will be considered as GAW data unless the submitter opts out.

## To: Contributors of reactive gases data

<sup>&</sup>lt;sup>1</sup> A short introduction to EBAS is given here: <u>http://ebas.nilu.no/ResourcesATMOS/AboutEBAS.pdf</u>

## Data submission guidelines and transition from WDCGG to WDCRG

Data reporting to WDCRG will follow the same principles and requirements as outlined for aerosol data (cf. <u>http://www.gaw-wdca.org/SubmitData.aspx</u>). A revised version of these data submission guidelines, taking into account the establishment of the new WDCRG, will be available in the near future.

According to the requirements for GAW stations, data have to be submitted within one year following the measurement. For some specific applications, a shorter submission period may be required. With several developments or shifts in procedures both at the data submitter and at the WDCRG end, the normal deadline for reporting is optional for data from 2014, while data for year 2015 are to be reported to WDCRG by the end of 2016. We kindly request data originators to report also any historical data (either already available at WDCGG or other) together with the data of 2015. WDCGG and WDCGG will jointly work on the transfer of historical data from one archive to the other. WDCRG will accept RG data submitted with immediate effect.

Alongside the observational data, the submission of adequate metadata is critical. The present WDCRG/WDCA standards and formats are also described in the data submission guidelines (see e.g. http://www.gaw-wdca.org/SubmitData.aspx). Please note that the reporting formats allow submissions of multiple years simultaneously, and further that NILU will offer both tools, training courses and other forms of support to accommodate the reporting.

The GAW Expert Team on World Data Centres (ET-WDC) is currently working on harmonization of the metadata standards between different data centres supporting GAW. This harmonization has been requested by WMO Members at the 17<sup>th</sup> World Meteorological Congress through adoption of the WMO Technical Regulations vol. 1 on the WMO Integrated Global Observing System (WIGOS). WDCRG (and WDCA) will evolve their guidelines according to the relevant WIGOS metadata standard.

We thank you again for your cooperation in activities related to the WMO/GAW Programme and are looking forward to your continued invaluable support of the programme.

Yours faithfully,

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