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DLR WORLD DATA CENTRE ON REMOTE SENSING OF THE ATMOSPHERE

The purpose of this paper is to inform CGMS Members of the establishment of the World Data Centre for Remote Sensing of the Atmosphere (WDC-RSAT) on 22 July 2009 by signature of a MOU between WMO and the German Aerospace Centre (DLR). The scope of WDC-RSAT hosted by the German Remote Sensing Data Centre (DFD) is to act as a "one-stop shop", providing access to space-based observations on the chemical composition of the atmosphere.

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1 INTRODUCTION

The purpose of this paper is to inform CGMS on the establishment of the World Data Centre for Remote Sensing of the Atmosphere (WDC-RSAT) on 22 July 2009 by signature of a MOU between WMO and the German Aerospace Centre (DLR). The scope of WDC-RSAT hosted by the German Remote Sensing Data Centre (DFD) is to act as a "one-stop shop", providing access to space-based observations on the chemical composition of the atmosphere.

2 WDC-RSAT ACTIVITIES

WDC-RSAT offers scientists and the general public free access to a continuously growing collection of satellite-based atmosphere-related data sets and services. These data holdings range from raw data collected by remote sensors, to information products derived from the raw data ("value adding"). The current WDC-RSAT contains data and information products addressing atmospheric trace gases, clouds, surface parameters, solar radiation, and special services as near-real time (NRT) information related to e.g. European air quality, UV radiation forecasts, and global ozone level maps. In addition to archiving data sets, WDC-RSAT cooperates with other data centres and strives to provide additional services, which include data analysis and value adding, data summaries, campaign planning support, and data set validation and publication. In support of its data provision activities WDC-RSAT utilizes decentralized online robot-driven technology with a storage capacity of more than 300 Tbytes, as well as electronic interfaces (EOWeb, interoperable catalogues, interactive post-processing and processing on demand).

DLR has a long involvement in ozone measurements from satellites, as well as coordination of international research projects. Currently, DLR is coordinating the PROMOTE-2 project in close team-work with WDC-RSAT. DLR is hosting the GOME, SCIAMACHY and MIPAS processing centres which are also closely related to WDC-RSAT. DLR is active in the field of stratospheric and tropospheric modelling including satellite ozone assimilation, which feeds into the WDC-RSAT. As partner of the Virtual Institute "Environmental Station Schneefernerhaus, UFS", DLR supports this GAW Global Station through providing satellite-based data and information products to the UFS via the WDC-RSAT.

The World Data Centre for Remote Sensing of the Atmosphere (WDC-RSAT) is now one of six WMO-GAW World Data centres. All these data centres will in turn be part of the WMO Information System (WIS) by acting as so-called Data Collection or Product Centres (DCPC). WDC-RSAT will give the research community simplified access to data on the chemical composition of the atmosphere, either by giving access to data stored at the centre or by acting as a portal that contains links to other satellite data centres. As a GAW WDC, it will be initially focussing on a limited number of parameters, such as ozone and aerosols.

Further information can be found on the WDC-RSAT web site: <http://wdc.dlr.de/>

3 CONCLUSIONS

CGMS Members are invited to note the opportunities for collaboration with WDC-RSAT.