The World Data Center for Remote Sensing of the Atmosphere (WDC-RSAT)

M. Bittner (1), K. Höppner (1) and B. Hildenbrand (1)

(1) German Aerospace Center (DLR-DFD), 82234 Wessling, Germany
(michael.bittner@dlr.de / +49.8153.28.1363)

Since 2003 the Applied Remote Sensing Cluster of DLR has hosted and operated the World Data Center for Remote Sensing of the Atmosphere (WDC-RSAT, http://wdc.dlr.de) under the non-governmental auspices of the International Council of Science (ICSU). 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 are available on-line and range from raw data collected by remote sensors, to information products derived from the raw data ("value adding"). The current WDC-RSAT data holding contains data and information products addressing atmospheric trace gases, clouds, land and sea surface parameters, solar radiation, and special services as near-real time (NRT) information related to e.g. European air quality, UV radiation forecasts, global ozone level maps. In addition to archiving data sets, WDC-RSAT cooperates with other data centers 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 Germany, three current ICSU World Data Centers, namely WDC-Climate, WDC-MARE, WDC-RSAT, and the pending WDC-Terra founded in 2004 the German WDC cluster for "Earth System Research" in order to promote Earth System Science and Research in Germany and abroad. In cooperation with the World Meteorological Organization (WMO), WDC-RSAT is aiming to become part of a data integration center to be created within the Global Atmosphere Watch (GAW)-program of the WMO. This center would concern itself with linking different GAW-relevant data sets both with each other and with models. In this context WDC-RSAT will also handle non-satellite

based data which is relevant within the context of validation.