

NOAA/National Climatic Data Center Open Access to Physical Climate Data Policy December 2009

The basic tenet of physical climate data management at NOAA is full and open data access. All raw physical climate data available from NOAA's various climate observing systems as well as the output data from state-of-the-science climate models are openly available in as timely a manner as possible. The timeliness of such data is dependent upon its receipt, coupled with the associated quality control procedures necessary to ensure that the data are valid. In addition, the latest versions of all derived data sets are made available to the public. NOAA also provides access to all of its major climate-related model simulations.

NOAA is a strong advocate of the scientific peer review process. Our major climate products are derived from algorithms that have been reviewed and published in the open peer-reviewed literature. This helps to ensure adequate information is available about the algorithms used to transform data into our many hundreds of climate-related products.

NOAA participates in numerous international and national scholarly bodies whose goal is to increase the accessibility of data worldwide. This includes the Global Earth Observation System of Systems (GEOSS), the Global Climate Observing System (GCOS), the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission, the International Council of Science (ICSU), and other international bodies dedicated to the exchange and open-access of climate-related data.

The World Data Center (WDC) system was created under the auspices of the International Council for Science (ICSU) to archive and distribute data collected from the observational programs of the 1957-1958 International Geophysical Year. Originally established in the U.S., Europe, Russia, and Japan, the WDC system has since expanded to other countries and to new scientific disciplines. The WDC system now includes 50 Centers in 12 countries. NOAA hosts a total of 5 WDCs at its 3 National Data Centers (2 at the National Climatic Data Center (NCDC); 2 at the National Geophysical Data Center, and 1 at the National Oceanographic Data Center) covering a wide range of thematic disciplines including meteorology, climatology, paleoclimatology, oceanography, marine geology and geophysics, and solar terrestrial physics. The WDC system has worked very well in the context of the NOAA National Data Center structure, as it provides a non-governmental portal that in many cases allows a much easier and more seamless access to data across a number of data centers. Its holdings include a wide range of solar, geophysical, environmental, and human dimensions data.

As an example of data accessibility, navigating all those international data centers can sometimes be a bit daunting, and that is why NOAA's NCDC operates and hosts the Global Observing Systems Information Center (GOSIC) at <http://gosic.org> [managed by the US GCOS program at NCDC] to try and help people get to international climate related datasets as easily as possible. For example, the GOSIC has a matrix to aid people get to various climate-related datasets via the 44 GCOS Essential Climate Variables at <http://gosic.org/ios/MATRICES/ECV/ecv-matrix.htm>. GOSIC is also flexible enough to present new views to data as required, and NCDC continues to work on improving the interface to data from many global and national data centers, along with the associated metadata holdings. The GOSIC also has a presence on the GEOSS Data Portal in order to further the availability of climate data.

An article on the GOSIC was published in the September 29, 2009, edition of *EOS*; see link at <http://www.agu.org/pubs/crossref/2009/2009EO390001.shtml>.