Abstract

Requirements and approaches for data collection and exchange of atmospheric composition data in WMO

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Atmospheric composition data serve a number of use cases including air quality regulation in support of public and environmental health, climate change mitigation and adaptation, and weather forecasting. The WMO Global Atmosphere Watch (GAW) program coordinates the monitoring of atmospheric composition and thereby facilitate science for services on a global scale. Members support this effort in different ways, but in most countries, the activities extend much beyond the national meteorological and hydrological services (NMHSs) and heavily rely on the contributions of academia, environmental agencies, national research laboratories etc. Also due to the plethora of atmospheric variables that can and need to be distinguished and the varying research focii, the monitoring and data management systems are heterogeneous and complex. The GAW Program relies on 6 topical World Data Centres and two dozen or so program/network-specific data archives, of global or regional scope, as well as the central WMO GAWSIS-OSCAR/Surface metadata system, one of the WMO Integrated Global Observing System (WIGOS) tools. While the GAW data policy is an open-fair use-based policy applied at almost all of the data archives in slightly varying flavors, the approaches taken with respect to legally binding agreements (licenses) vary and are still being developed at many of the centers. The presentation will attempt to document the current situation and existing requirements and to provide input for the newly developing resolution ‘42’.