



METEO-Cert: MeteoSwiss acceptance procedure for automatic weather stations

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Over the last decade MeteoSwiss – the Swiss National Met Service – has started to integrate surface observations from networks of other public institutions (such as cantons) as well as by private weather services into its central data storage platform, the MeteoSwiss Data Warehouse (DWH). This significantly increased the coverage of meteorological surface observations over Switzerland in support of the MeteoSwiss services (in particular in the field of warning and now casting). However, integrating observations from other networks also create challenges concerning the quality of these additional data sources. This contribution presents the development of a new certification procedure (METEO-Cert), or acceptance procedure, which qualifies each data source and a quality flags for each data set. The same procedure is applied to MeteoSwiss's own surface observation network. This meta-information is of great importance for further data processing. It can be delivered in combination with the data itself to every user within and outside MeteoSwiss.

In 2013, MeteoSwiss started implementing METEO-Cert and mandated a third party auditor (METAS, the Swiss Institute of Metrology) to carry out the assessments at the stations' sites to ensure the neutrality of this process. Since 2014 the quality information is stored in the MeteoSwiss Data Warehouse and is accessible to all users. This integration follows the principle of WMO WIGOS (see www.wmo.int/wigos) and brings a clear overall improvement in the evolution of the practices (siting of the AWS, sensor's technology, network services, ...) both for the national agency as well as for the private partners . This presentation maps out the principles and challenges associated to this process. It further provides background information on how METEO-Cert operates. Finally it will be shown, how this tool can be used by decision makers in other National Meteorological Services to evaluate the quality (and thus the integration) of partner networks.