

Integrating European Common Automatic Weather Station (EUCAWS) Data in Delayed Mode Data Streams at the Marine Data Climate Centre of Deutscher Wetterdienst

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Abstract:

The Marine Climate Data Centre of Deutscher Wetterdienst (DWD) maintains an extensive climatological archive of quality controlled marine surface and atmospheric observations. The data archive consists of recent observations as well as historic data ranging back to the mid-19th century. Data from the archive is used in a variety of applications, such as continuous climate monitoring and international data exchange within the WMO Marine Climatological Summaries Scheme (MCSS). In this context DWD and the UK MetOffice operate the Global Collecting Centres (GCCs), which are responsible for the international collection and redistribution of quality controlled data from Voluntary Observing Ships (VOS). Recently, DWD started to equip VOS with the new shipborne European Common Automatic Weather Station (EUCAWS). As conventional manual observations on board of ships are declining, the integration of data from the EUCAWS systems into the delayed mode data streams is crucial in order to preserve the available number of marine observations for climate applications. However, this requires modifications to the data management to allow traceability of the data originating from different real-time and non-real-time data streams. New forms of data management are needed, such as flexible data access and product generation. Standardized data formats and metadata handling are essential to allow data exchange with external partners. The presentation will give an overview of the marine climate data management at DWD and the inclusion of EUCAWS data, focussing on recruitment and equipment of VOS, data collection and quality assurance as well as data redistribution and aggregation into marine climate data products.