

## **WMO data collection and archival of VOS observations**

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The international agreement concerning a formalized recording of weather observations from the seas in ships' logbooks was made at the Maritime Conference held in Brussels in 1853. Traditional logbooks were only episodically digitized and exchanged through bilateral agreements. The digitalization and exchange of digitized meteorological journals were not formalized until 1960.

The Commission for Marine Meteorology on its third session in 1960 made several recommendations, which formalized preparation of the marine section of the World Climatic Atlas and created the basements of nowadays existing Marine Climatological Summary Scheme. The Fourth World Meteorological Congress in 1963 finally decided on regular publication of marine climatological summaries and designated the 1<sup>st</sup> January 1964 as the start of an agreed procedure. By this recommendation for the purpose of preparing the marine climatological summaries and of collecting data with a view to the eventual preparation of a marine characteristics, the world ocean and the seas were divided into several areas of responsibility and several countries volunteered to act as Responsible Members, e.g. being responsible for collecting digitized marine meteorological data from the area of their responsibility, for preparation of marine climatological summary and for supporting society in high quality climatological information. Congress decided that all Responsible Members should prepare annual climatological summaries for their areas of responsibility and in those areas for a number of selected representative sub-areas, as well as for the fixed ship stations within them. Annual summaries should be prepared for particular years of decade 1961-70, 10 years summaries should be prepared systematically starting with the period 1961-70. The scope and layout of summaries has been defined as well as its form of publication. All Contributing Members should ensure that all available observations from marine stations would be digitized, sorted half-yearly and dispatched to the Responsible Members according to their area of responsibility.

The above system developed with time. Several important changes have been introduced taking into account changing boundary conditions, e.g. technological progress etc.

Considering increasing importance of the global marine data collection in support of global climate monitoring, research and prediction, the need to improve the timeless and efficiency in data collection and archival, the need to ensure uniform Minimum Quality Control Standard (MQCS) and finally to improve an appropriate backup of data collection and exchange procedure as well as to ensure continuous global availability of marine data the eleventh session of CMM recommended several changes with MCSS. Two of the RMs (Germany and UK) will act as Global Collecting Centers (GCC) for marine climatological data since 1st January 1994.

There is increasing interest in global marine climatological data due to global warming and intensification of investigations concerning the role of ocean in global processes. Intensification of efforts to digitize results of marine meteorological observations made before 1960 is highly recommended by the marine climatological research community, whereas the accompanying metadata become an important issue. Many of these historical data (and contemporary as well) have been compiled into global collections such as the International Comprehensive Ocean-Atmosphere Data Set (I-COADS). However digitalization of historical logbooks meets several problems, as it is a laborious process, requiring a bulk of resources in time, staff and budgets.