MedCLIVAR: Mediterranean Climate variability.
Meteorological Database Over The Mediterranean Sea Through Old Royal Navy Logbooks
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Introduction and Methodology:
Ship’s logbooks have proved to be one of the most effective sources in our endeavours to reconstruct the maritime climate back. Several thousands Royal Navy Logbooks, surviving the rigours of life at sea, have come to the present day. Most are found in the UK repositories such as The National Archives (Figure 1) at Kew (TNA).

The principal objective is to analyse the scientific potential of logbook climatic data and produce a database of daily weather observations for the Mediterranean Sea between 1675 and 1850. We consulted documents at TNA where Royal Navy officers keep a record of vessels’ location. These records are catalogued at TNA as ADM 8 (Figure 2) and are classified annually. The ADM 8 documents indicate, in a monthly basis, the number of ships in the area and the main information for these ships.

Once the monthly list of vessels sailing the Mediterranean was known, we selected at least one or two ships per month, and we searched the Captain’s logbooks of the selected ships. The documents that contain these logbooks are catalogued at TNA as ADM 51 (Figure 3) and their reference at TNA can be found in the ADM 51 glossary. The needed documents were ordered to TNA and it was possible to take pictures of each one of these logbooks. The next step is to digitize the daily logbooks, making use of the main information for these ships.

To build the database it has been necessary to localize at TNA which vessels were sailing the Mediterranean Sea between 1673 and 1850. We consulted documents at TNA where Royal Navy officers keep a record of vessels’ location. These records are catalogued at TNA as ADM 8 (Figure 2) and are classified annually. The ADM 8 documents indicate, in a monthly basis, the number of ships in the area and the main information for these ships.

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Results:
Data digitized for this database (Figures 5 and 6) includes information about 82 ships from 313 documents from TNA with logbooks covering the period 1673-1850. We have 21,000 images of these logbooks for the complete period. Today, the database already includes around 35,435 records (55% of the total) and we continue working to transcribe the remaining data. The period 1725-1820 has been fully transcribed and is ready for analysis. It is still necessary to digitize the remaining data.

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With this database it will be possible:
- To provide a better understanding of the nature of climatic change over the Mediterranean for the 1675-1850 (period without instrumental data).
- To prepare future analysis of extreme weather events.
- To improve the current Sea Level Pressure reconstructions over the Mediterranean.

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