

Guide to the Applications of Marine Climatology: Results of CLIMAR-II

Presentation for ETMC-I/Doc. 7.1
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CLIMAR-II: Second JCOMM Workshop on Advances in Marine Climatology

Brussels, Belgium, 17-22 November 2003



Objectives:

- To celebrate the 150th anniversary: Brussels Maritime Conf. of 1853
- To receive appropriate input for the dynamic part of the WMO *Guide to the Applications of Marine Climatology*, emphasizing new technologies
- To provide guidance/technical support for National Met. Services
- To make further contributions to the data and metadata of ICOADS

Guide to the Applications of Marine Climatology (WMO–No.781, first published: 1995)

Purpose

- Provide comprehensive documentation of the knowledge and techniques already in use by a number of Meteorological Services in the process of marine meteorological data
- Describe the diverse applications of such data in the services of the marine user community

Contents

1. Introduction
2. Climatological elements and their significance to operations and design
3. Sources and preparation of data
4. Application of marine climatological data in support of marine activities
5. Analysis, presentation and interpretation
6. Geographical considerations
7. Practices of Member countries

Mathematical appendix:
additional statistical procedures

Static part — expected to remain unchanged for a long period

Background Events:

First WMO Workshop on Advances in Marine
Climatology — CLIMAR99
(Vancouver, Canada, 1999)

Outcomes:

- Dynamic part of the *Guide* -- Peer reviewed
 - JCOMM TR No. 13 (WMO–TD/No.1081)
 - CD-ROM and web
- Proceedings of CLIMAR99
 - JCOMM TR No. 10 (WMO–TD/No.1062)
 - CD-ROM only

Background Events:

Workshop on Advances in the Use of Historical Marine Climate Data (Boulder, USA, 2002)

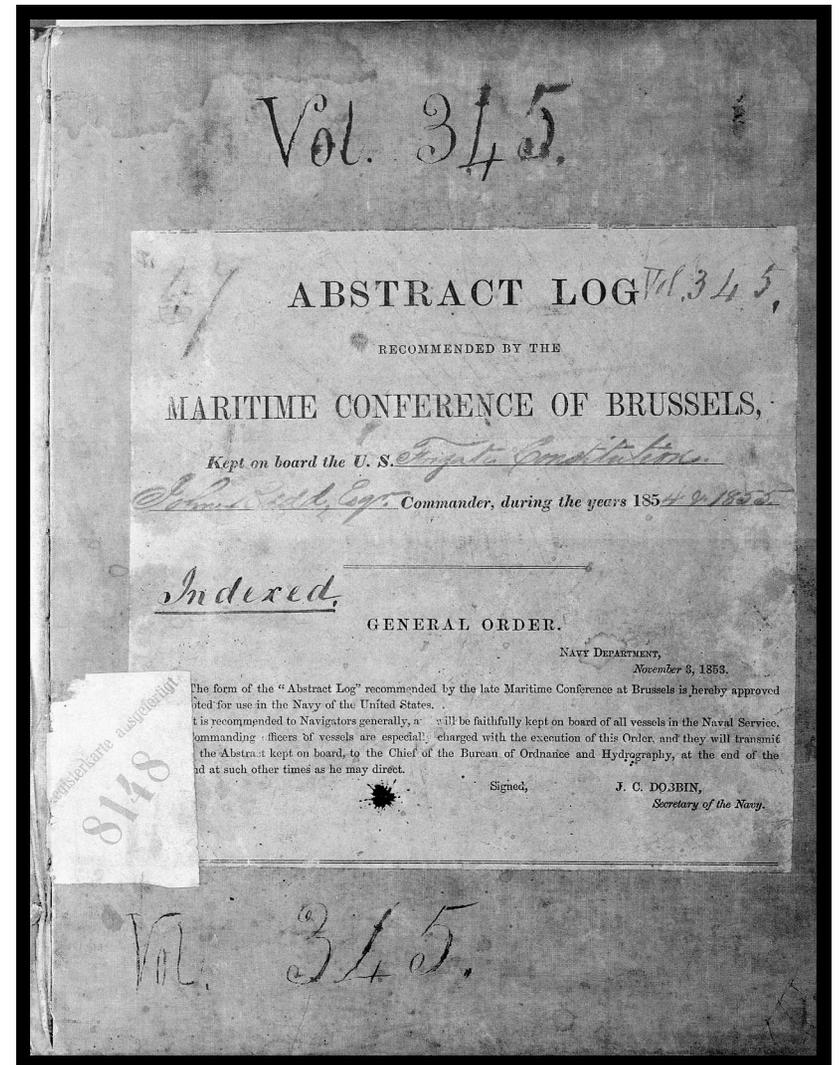
- Build on blend of COADS plus UK Marine Data Bank and many other sources
- **Outcome:** *WMO Bulletin* article (2002, **51**(4))
- Recommendations--general background:
 - Reduce remaining data biases
 - Increase coverage + temporal resolution
 - Specify uncertainty in analyses
 - Specify dataset versions; promote easy data access
- Agreed:
 - International-COADS



150th Anniversary Celebration

(17-18 November 2003)

- 1853 Conference convened by USA Navy Lt. Matthew Fontaine Maury and Chaired by Belgian Observatory Director Dr Adolphe Quételet.
- Celebration linked to CLIMAR-II
- Opened by HM King Albert II of Belgium
- Included historical reviews of the 1853 Conference, and of the development of operational marine meteorology and oceanography, leading to JCOMM, GOOS, and GCOS.
- Concluded with a future vision of operational oceanography and marine meteorology.



CLIMAR-II Structure

(19-22 November 2003)

Session I: Cross-cutting Issues

- databases, reanalyses (fluxes, ocean reanalysis, GODAE), statistical analysis techniques, quality control (QC) techniques

Session II: Pressure and Wind (air pressure, wind, waves associated with wind)

- QC, homogeneity, metadata, uncertainty, analysis

Session III: Marine Temperatures (air and sea surface, sea-ice associated with SST)

- QC, homogeneity, metadata, uncertainty, analysis

CLIMAR-II Outcomes

- *International Journal of Climatology*
 - Special issue ~2005 — ~17 peer reviewed papers
 - Updated dynamic part of the *Guide*
 - Freely available from WMO website after 1 year
- *Proceedings of CLIMAR-II*
 - JCOMM TR No. 22 (WMO/TD–No.1199)
 - Abstracts and presentations
 - CD-ROM only
- *WMO Bulletin* article (**53**(2), April, 157-159)

CLIMAR-II Recommendations

- Future meetings
 - 1-2 years: sequel to Boulder workshop
 - 2007: CLIMAR-III
- Scientific recommendations (see Doc. 7.1):
 - climate monitoring, metadata, homogenization, uncertainties, data availability
- Consolidated Boulder/CLIMAR-II recommendations:
<http://www.cdc.noaa.gov/coads/climar2/recs.html>