

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 COADS

CLIMAR-II: Background Chronology

- 1995: First publication of the *Guide to the Applications of Marine Climatology* (WMO-No.781)
- 1999: CLIMAR99, Vancouver
 - Input: for dynamic part of *Guide* and COADS
- 2001: JCOMM-I, Akureyri, Iceland
 - Recommendation: CLIMAR-II & merger with 150th
- 2002: Workshop on Advances in the Use of Historical Marine Climate Data, Boulder
 - Recommendations: for marine analyses and COADS

CLIMAR-II: Structure

Session I: Cross-cutting Issues

- databases, reanalyses (fluxes, ocean reanalysis, GODAE), statistical analysis techniques, quality control 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: Expected Outcomes

- *International Journal of Climatology*
 - Special issue ~ 2005, Peer reviewed
 - To form dynamic part of the *Guide* (WMO No.781)
 - Freely available from WMO website after one year
- Proceedings of CLIMAR-II
 - JCOMM Technical Report (oral and poster)
 - *Abstracts, plus:*
 - *Electronic presentations*

CLIMAR-II: Recommendations

Saturday a.m. wrap-up discussion (9-11)

- Selected session chairs to report
- Review status of the Boulder workshop recommendations
- Discussion
- Way forward and next steps

CLIMAR-II Recommendations

Climate Monitoring

- All observations should follow the GCOS Climate Monitoring Principles
- Continuity and overlap of satellite missions must follow the GCOS Climate Monitoring Principles
- Improve communications among numerical weather prediction, climate and data-generation communities
- Define target accuracies for the basic meteorological variables (SST, MAT, SLP, humidity, wind speed and direction, waves, cloud cover) and for their combination into flux fields

CLIMAR-II Recommendations

Metadata

- Digitize the entire record of the WMO ships
- Develop a procedure to identifying, archiving and distributing climate metadata
- Update the metadata archive through JCOMM without destroying the older entries
- Buoys should have a unique identifier
- Metadata, including any adjustments must be clearly linked to data

CLIMAR-II Recommendations

Homogenisation

- Acquire data from independent platforms to allow validation and homogenisation
 - The VOSCLIM project should be continued
- Proxy data (e.g. coral-based SST estimates) must be carefully matched with instrumental data
- documentation
- Make QC of data more consistent and effective, including

CLIMAR-II Recommendations

Data availability

- Simplify and accelerate data access to users
- Continue to be use the International Marine Meteorological Archive (IMMA) format
- Support improvements to the quality of research vessel surface meteorological and oceanographic data
- Develop links to sources of coastal and island data

CLIMAR-II Recommendations

Future workshops

- CLIMAR-II saw the need to continue to monitor and assess progress in marine climate data analysis
 - A sequel to the Boulder workshop should be held in 1-2 years' time
 - CLIMAR-III should be held in 2007