

Report on RC LACE Data Manager Activity

for the period of 1th January– 31st December, 2010
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This report summarizes the work of the RC LACE Data Manger (DM) in 2010. Following chapters describe in more details the areas of DM's main interest:

On demand help in ODB related activities

ODB related support was provided up on request. Most of the issues were published on RC LACE forum web environment, which allows suitable spread of information and direct interaction of registered users, see www.rlace.eu/forum. Considerable efforts were dedicated to the help with installation of the verification package VERAL at SHMI and overall presentation of the pre-processing tools and format of observation given during Maintenance training held in Météo France in September 2010.

Development and maintenance of observation pre-processing tools

Within the scope of “Project of development of an operational data assimilation system for LACE” the DM provided support related to the centralized observation pre-processing for LACE (so called OPLACE). The BUFR tools to simplify observation processing were delivered for testing by the end of 2009 and during this year the efforts were dedicated to the evaluation of BUFR data. OPLACE offered both ASCII and BUFR satellite radiances from May 2010. An extension of ATOVS observation (from NOAA19 and METOP) was achieved indirectly via introduction of new observation format for satellite data. The quantitative comparison of both formats was performed and considerable advance in data processing speed-up and surprisingly also data amount was achieved by using BUFR inputs.

Exchange of non-GTS SYNOP data

In order to facilitate technically the implementation of non-GTS SYNOP data exchange the DM checked the availability of the data in Member's states and their means for the data provision. The predefined samples for January 2010 were gathered and the quantitative analysis of the data was performed. As part of the data was not provided in a suitable format for direct use in OPLACE, the conversion programs are under development.

Development and maintenance of an interactive web-based observation monitoring system for ALADIN variational data assimilation systems (3D VAR and 3D-FGAT)

The observation monitoring was successfully installed in almost all RC LACE member states. Not much efforts were dedicated to a development of the system and mostly maintenance was done during this year.

RC LACE for HARMONIE Scripting System Technical Action

RC LACE Steering Committee approved to dedicate an effort to HARMONIE script system development (to include needed elements we miss at the moment) to be able to use HARMONIE on the long term as a unified script system for compiling and running the model. The DM's efforts were related to the technical installation of the system locally at CHMI, as an installation on new platform is still rather complicated issue no considerable progress was made and HARMONIE scripting system missing elements are to be developed.

SRNWP Verification program

In November 2009 LACE Council decided that ALADIN/CE will represent LACE in SRNWP Verification (SRNWP-V) Program. Taking into account that this program was already ongoing, rather urgent action was needed in 2010 to fulfil all requirements of the Program. The significant part of the DM's activity in 2010 was devoted to the preparation and the evaluation of the products requested by SRNWP-V Program. The DM also ensured monthly transfer of recent products to UK Met Office during 2010.

Concerning the evaluation the DM prepared the set of products for testing period of year 2009 and performed cross-check of the verification statistics provided by SRNWP-V Program. The statistics for surface temperature and mean sea level pressure embody quantitative differences (most probably due to sampling as local verification package use a quality control of the observation to select the stations to be used in verifications (thus we might use generally less observation than available) and due to the observation operator usage - both might have an impact on absolute value of the scores), but qualitatively the results are very similar and acceptable. But this is not the case for wind speed, where the differences are considerable and at the moment still unexplained.

Following table provides summary of the plan and its realization for 2010.

Summary of the planned and executed RC LACE Data Manager Activity for 2010

	Plans	Realization
ODB related activities	1.0 PM	1.5 PM
Observation pre-processing	1.0 PM	0.5 PM
Exchange of of non-GTS data	1.0 PM	1.0 PM
HARMONIE	1.0 PM	1.0 PM
Observation monitoring D&M	1.0 PM	0.5 PM
SRNWP Verification Program	1.0 PM	1.5 PM
Total	6.0 PM	6.0 PM