

Report on RC LACE Data Manager Activity

for the period of 1th January– 31st December, 2009

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This report summarizes the work of the RC LACE Data Manger (DM) in 2009. 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.rclace.eu/forum.

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 main subject of interest was an evaluation of OPLACE, detailed report is available up on request. Next item was development of the tools to simplify observation processing and incorporation of new data in BUFR format to OPLACE. At the end of the year splitting and merging tools of satellite data were provided for operational testing.

Impact study of non-GTS SYNOP

Previous study by Kertész (2006) did not show a benefit of the national (nonGTS) SYNOP data in ALADIN 3DVAR experiments. As an exchange of nonGTS data should be approved on the level of LACE Council, clear positive impact of data should be demonstrated first. There were two options for the realization of this item. If a suitable candidate is found the DM would assist in data sample preparation, eventually in a proposal for impact study and/or supervision. Or all the work would be performed by DM as this item has high priority for 2009. Finally Michal Neštiak applied for the call to contribution and performed the study, unfortunately conclusions of the impact study were not convincing and it was concluded that testing period of 10 days is too short for definitive deduction (complete report is available on RC LACE web). In meantime the DM started to check the status of non-GTS data in Member's countries.

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

The prototype version of this system has been developed by S. Kertész and is now available for testing. During this year two successful installations of the monitoring were done in Slovenia and Croatia.

The DM extended the monitoring system in order to handle new satellites (MSG-2 and METOP) and sensors (HIRS and IASI) and prepared the new export package for potential

users. Remaining efforts were related to the preparation of the monitoring extension to include more diagnostics and major renewal of the system (in order to read ODB directly).

RC LACE for HARMONIE Scripting System Technical Action

Data assimilation suite is rather complex and thus quite demanding for installation and maintenance. To give support to LACE Members the unification of the scripting system was examined in 2008. RC LACE build working group of ALADIN System Coordinator (ASC), Area Leader for data assimilation (AL DA) and DM to prepare proposal for HARMONIE Scripting System Technical Action. RC LACE Steering Committee also 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 (2-3years) as a unified script system for compiling and running the model. The DM's efforts were related to the preparation of the proposal for Technical Action and remaining developments were postponed for 2010.

Following table provides summary of the plan and its realization for 2009.

Summary of the planned and executed RC LACE Data Manager Activity for 2009

	Plans	Realization
ODB related activities	1.0 PM	1.0 PM
Observation pre-processing	1.25 PM	2.0 PM
Impact study of non-GTS data	1.5-0.5 PM	0.5 PM
HARMONIE	0 -1.0 PM	0.5 PM
D&M of obs. Monitoring		
- adding new data	1.0 PM	1.5 PM
- CANARI	0.5-1.0 PM	0.25 PM
- Redesign	0-0.50 PM	0.25 PM
Total	6.25 PM	6.0 PM