

Thomas Haiden	Austria, PSO of RC LACE
Stjepan Ivatek-Sahdan	Croatia, representative
Jure Jerman	Slovenia, representative
Dijana Klaric	Croatia, DPL of RC LACE
Gabor Radnoti	Hungary, representative
Maria Siroka	Slovakia, DPTL of RC LACE, observer
Jozef Vivoda	Slovakia, representative, SAC chairman
Yong Wang	Austria, representative

1 Opening

The 11th RC LACE SAC meeting was opened by J. Vivoda, the SAC chairman.

2 Adoption of the Agenda

J.-F. Geleyn has proposed new point 4.4 to the Agenda, a call for opportunity for the project of MAP reanalysis. The proposal was accepted and the Agenda was adopted.

3 Review of RC LACE operational activities (2000-2001)

The review of the main operational changes at RC LACE computer center was given by R. Brozkova, the Project Leader of RC LACE (see attachment 1).

4 Review of scientific activities in RC LACE

4.1 scientific activities in Prague center (2000-2001)

The summary of the scientific activities in Prague center was given by R. Brozkova (see attachment 2).

After her presentation, G. Radnoti has raised the general question concerning the R&D outside Toulouse: how to port such developments back to the main reference source code version, when for example several people are working on the same topic (i.e. on the same routines) at different places ? In the discussion also the importance of the latest source code version availability on the place where the development is made was stressed. Everyone should decide if her/his work is worth to be put to the main code. Typically such porting should be a responsibility of RC LACE ASC (Aladin System Coordinator). Unfortunately this position is for long time unoccupied, what is felt as real problem for RC LACE R&D (mainly because the experiences say that it is impossible to import new developments to the main source code version during the phasing).

J.-F. Geleyn remarked that now the situation is even more complicated knowing the staff problem of GCO team in Toulouse.

To solve problem of missing ASC in RC LACE, J.F. Geleyn proposed that the merging and porting of new pieces of the locally developed code into model reference versions could be done by J.-M. Audoin (he is responsible for

Due to announced early departure of some participants, this point was moved to the end of the agenda. Each member will be asked to provide scientific report during next meeting in Vienna (held in september 2001).

4.4MAP reanalysis

J.-F. Geleyn has presented a document "Observations Formatting and Standard Reanalysis of the MAP Special Observing Period (Special Announcement of Opportunity by the MAP Committees)". It was mentioned, that GMAP could propose two alternatives, how to participate:

- to run ARPEGE 4DVAR with special high resolution Jb term including coupling with humidity
- to run 4DVAR ARPEGE with slightly increased resolution of the inner loop and to couple this with ALADIN 3DVAR assimilation cycle

He asked if LACE would be interested in taking part at this challenging experiments. In the following discussion several aspects were mentioned:

- LACE will surely not participate on the preparation of the special MAP-SOP observations as it does not have sufficiently experienced manpower for such job
- anyway the above statement does not prevent ALADIN community to work on the new ODB format of the observations and on the preparation of its own high resolution observation database
- giving the amount of work already done within ALADIN team on 3DVAR data assimilation (new Jb involving humidity coupling, lagged statistics, tuning of Jo/Jb ratio, blending by DFI, cycling aspect) and the work planned (IDFI, double nested LAM data assimilation, coupling strategies), it would be a pity to miss such opportunity (at least for gaining new experiences with high resolution observations, and also with data assimilation itself)
- especially - knowing/seeing the probable evolution of the LACE project, this seems to be the last chance of LACE for glory
- the estimated available resources will be about 10 kEuros (basically for salaries) - if ALADIN proposal is chosen
- question of potential available manpower and personel was opened

The following technical/scientific problems were identified and needed manpower estimated:

- | | |
|---|--------------------------------|
| •ODB | has to be done anyway |
| •3DVAR upgrade (e.g. including TOVS) | 2 man-months |
| •special obs (profilers, radar wind) | 1.5 man-months |
| •screening (rejection of the obs, thinning) and Jo tuning | 3 man-months |
| •IDFI + cycling aspects | to be solved in autumn by LACE |
| •debiasing VAISALA q obs | 1 man-month |
| •preparation, supervision, administration | 8 man-months |

all together estimated 18 man-months

RC LACE would be interested in participation on the MAP reanalysis project. The nominated person should be asked if they would be interested in this action. Also the RC LACE Council must be asked for the support (especially concerning the 1.5 man-month per Institute commitment in the case of "crisis").

Even in case this proposal is not chosen by MAP committee, it would be interesting to run such experiment on MAP reanalysis for the training and experiences gaining purpose.

5 New scientific collaboration model of RC LACE after 2002 in the decentralized conditions

This point was put on table after the clear message from the last informal Council meeting, that there will be no common operational application after the end of the validity of the current LACE MoU (december 2002).

5.1 Presentation of the proposals of future cooperation

The Austria, Hungary and Czech republic were asked to present their visions of future collaboration within RC LACE. The main documents are attached (see attachments 4, 5 and 6).

Hungary states that the local application at each country is already a reality. They propose to keep only common telecommunication and archiving center. Also they claim that the RC LACE committies did not work efficiently enough, therefore the proposal is to have only one steering committee, its Chairman would be also the Project Leader. R&D will be organized within "naturally created" working groups.

Austria mentioned that their proposal is not really independent one, it agrees with and supports the Hungarian one. They propose decentralized operations and also the research. The working groups will have the leaders responsible for the R&D tasks. The only necessary positions will be the PL and ASC.

Czech representative recalled that the common operations and R&D are intrinsic for their proposal, and in current situation (decentralization of all activities) this proposal is dead. They think that decentralization will not be possible in case of intensive research of data assimilation with the aim of the operational application. They also warned that in case of decentralization and therefore splitting the resources LACE may not be competitive within Europe.

5.2 Meteo-France point of view.

J.-F. Geleyn has presented the view of Meteo-France, our NWP partner. First of all he stressed that RC LACE is a positive factor for ALADIN project, and an equal partner for Meteo-France (RC LACE = 40 % of ALADIN R&D). Then he listed potential minuses, questions and problems connected mainly with Hungarian and Austrian proposals:

- the suppression of the commitment of the central maintenance is felt as a serious problem, also due to some pressure at Meteo-France not to involve so much manpower to ALADIN compared to ARPEGE. Thus any additional workload for MF is not wishable.
- from political point of view a problematic point is that nobody clearly said why the LACE concept failed. This might be a negative example for other ALADIN partners.
- the Austro-Hungarian proposal goes against the policy of the European Union, as presented in the speech of Mr. Prodi "Research: the foundation of the Knowledge Society", Conference on An Enlarged Europe for researchers, Brussel

5.3 Discussion about the proposals and their consequences

The discussion on the proposal several times fluently jumped to the point 6 of the Agenda and back. So the summary of the main ideas and views will be given below without the distinction between points 5.3 and 6.

- HU insists on their own operational application. Also they think that without their own local applications the countries will loose interest in developping the model
- HR reminded the chronology of the Hungarian attempts to change the LACE status:
 - 1.everything is common
 - 2.common application, decentralized research
 - 3.decentralized application and R&D, common telecommunication
 - 4.shall the next step be to have also decentralized telecommunications ?
- CZ said that the telecomm lines will have to naturally follow the evolution of the ALADIN application at each country. Hence, each country shall adjust their lines and there is no point to impose the common telecomm.
- general opinion is, that if decentralized telecommunications will be cheaper, they will be decentralized.
- CZ thinks, that decentralization of the operational activities is possible in case of the dynamical adaptation, but probably not feasible for any kind of the data assimilation cycle
- SI claims that they see their future only in the foreign collaboration with ALADIN/LACE countries. In current situation SAC should be a bit political and propose the main guidelines for the future. They propose to have rather common budget on R&D than on the telecommunications. Also they would prefer to give some structure to R&D.
- FR and CZ share the opinion, that any meaningful R&D task should be done on the newest possible cycle, and the development should be put back to main code tree. Otherwise such development is lost in many local dead branches, and there is no benefit for other ALADIN partners.
- SK presented the opinion of the "small" coutry, which relies on central application ran on big domain, and their local WS version serves for very high resolution applications for local demands.

Anyway, in new situation SAC should propose new model of the scientific collaboration.

During the discussion it was suggested to identify the main scientific and operational priorities of RC LACE for the near and long future (till 2005) and discussion and possible conclusions on the future LACE strategies should follow these points. These priorities are presented below.

SAC thinks that due to the lack of the central application the scientific collaboration within RC LACE should be even enlarged. Our effort should concentrate on the following topics:

- DYNAMICS
 - stable, robust and efficient time scheme for non-hydrostatic model (NH is essential for the very fine resolutions which we plan to use: 5km/50lev for operational mode and 2.5km/80lev resolution for research mode)
 - the TL (tangent linear) and AD (adjoint) parts of the code developed an maintained in paralel with the direct code
 - relaxation of the thin layer hypothesis
 - decision for the advection scheme (since SL scheme might not be more effective than Eulerian scheme at very high resolution anymore , due to extreme increase of required interpolations)
- PHYSICS
 - advanced microphysics package + new prognostic variables (TKE, CLW)

- exchange of data (raised till today, but very important !, now connected with ODB), cost of these data
- verification
 - new strategy should be applied because the potential of the classical veral with canari seems to be saturated, with the aim to verify new parameters (cloudiness, max/min T2m, precipitations) including new observations
 - still produce standard scores

SAC also believes that the above mentioned scientific goals could not be achieved without the strong scientific collaboration within the LACE community.

The next SAC meeting should specify how to reach these challenging goals and how to coordinate the work with the other ALADIN applications.

The main conclusion from the discussion are

- With changing its organization LACE should not loose what have been gained up today**
- Common telecommunications budget might not be necessary**
- Common budget for R&D is probably a necessity (and the freedom to have the budget is very powerful). It can be either "true common budget", or the form of money/manpower commitments of each partner can be accepted.**
- For R&D task the coordination is needed, either in form of PSO, PL or MG**
- For the next SAC meeting, SAC chairman should collect the opinions on the form of the LACE R&D organisation from all LACE members. The summary of the proposals is as follows:**
 - R&D:**
 - centralized**
 - only coordinated**
 - fully decentralized**
 - Work organization:**
 - working groups with "volunteers"**
 - central budget**
 - money directly in central budget**
 - members commitments of dedicated manpower**

•R&D in RC LACE during validity of current MoU

See previous paragraph 5.3.

6AOB

The next RC LACE Council meeting is scheduled for November 2001. Therefore it was proposed that SAC meets at least ones before the Council. Preliminary date is the third week of September, in Vienna.

7End of the meeting

The 11th SAC meeting was closed by its chairman J. Vivoda.

