

Minutes from the 12th RC LACE SAC meeting

ZAMG, Vienna, 1st October 2001

Participants:

Radmila Brozkova	PL of RC LACE
Fischer Claude	France, NWP partner
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
Andras Horanyi	Hungary, observer
Martin Janousek	CZ, representative

1. Opening

The 12th SAC meeting was opened by SAC chairman.

2. Adoption of the Agenda

Agenda was presented and it was adopted as proposed.

3. Reports of DRU activities during second half of 2000 and 2001

The member representatives presented DRU activities since the 10th SAC meeting. DRU reports will be collected and attached to these minutes.

4. New scientific collaboration model of RC LACE after 2002 in decentralised conditions

The aim of discussion was expressed by SAC chairman - to prepare SAC proposal on new scientific collaboration model of RC LACE in decentralised conditions for RC LACE Council.

There are 4 existing proposals about future collaboration from HU, AU, CH and CZ. Members, which did not write their proposals, were asked to present their point of view on this issue:

SK: Representative presented position of small partner. The disappearance of reliable central application will be strongly felt and bilateral agreement for operational matters will be necessary for SK. SK agrees that topic-oriented R&D structure can work (the working groups organised according topics). Research group stays (RGS) are necessary to gather scientists working on the related topics. RGS can not be organised voluntarily by centres, but rather planned in advance by a responsible body. They should be financed by the central budgeted.

SK agrees that the LACE advisory committees as they exist today, do not work. One body can be enough, but its leading person should be paid by the central budget. Telecommunications do not need to be paid from the central budget. SK believes, that effective R&D shall be organised around strong operational application and this constraint restricts small NMS to become an hosting institute of RGS.

SL: Situation at the institute (which doesn't exist anymore) is quite dramatic. That is the reason why no proposal was prepared. Therefore, they will only participate in the discussion and then try to convince their director to accept the agreed proposal.

FR: FR presented the view of RC LACE NWP partner. They urgently need to have a practical and concrete outcome of this SAC meeting due to future of ALADIN. They prefer coordinated RC LACE R&D, because Meteo-France can hardly be a partner of too many NMSs with all feedback going back to Toulouse. They prefer to communicate with only one body as a partner to GMAP. RC LACE decision will interfere with whole ALADIN projects, as some regional structure will probably be anyway required in future.

At this point minutes reflect the real evolution of the discussion, rather than the approved agenda.

The discussion was based on proposals of CZ, AU, HU and HR. Main standpoints and views presented during discussion, are summarised in following:

- For operational exploitation it seems that decentralisation is a reality. CHMI regrets this fact and they are very opened to any bilateral (multilateral) agreement concerning the operational application.
- Even in decetralsed conditions the RC LACE historical data currently stored in TelArch in Vienna shall be available for future. Council should decide on financial aspects of this issue.
- Telecommunication matters were not discussed since SAC does not feel responsibility for these issues. SAC requests TAC to propose to Council the best solution.
- It was stated that up till now the local development consisted mainly in porting, postprocessing, diagnostic, developing of local applications. Almost nothing went back to the reference code in Toulouse.
- Future RC LACE collaboration should not be oriented only to the topics, but rather to have more general function oriented structure: R&D, training, building and maintaining observational center/database etc.. International collaboration should concentrate on topics which can not be solved locally. R&D must be coordinated with all ALADIN partners (Meteo France as a leader).
- Effective scientific collaboration within RC LACE should be supported (at least partially financed) by the RC LACE central budget. This could be a stronger motivation for involved and/or responsible people.
- question of creation of working groups or leading centres was discussed, and if those have to be topic oriented or institute oriented. Topic oriented working groups (WG) were generally preferred. WG shall gather the scientists dealing with the related subjects. Experience says that the collaboration should not comprise exchange of information only, but effective R&D requires regular meeting of researchers. This could be organised in form of group research stays.
- WG should not be restricted to LACE people only, the collaboration should be as large as possible (but RC LACE financing should be probably restricted to RC LACE people). Also newcomers should be welcome to join the WGs. Nevertheless, if for a specific topic there is a lot of newcomers, a special training should be organised. -year or year plan (HR prefers one year plan due to home organisation restrictions). Working plan can contain more projects.
- Three WG were proposed:
- WG prepares the projects that aims to solve specific scientific topic. The proposal of the project should contain not scientific objectives only, but also the planned research group stays, including estimation of needed manpower, CPU and budget implications.
- WG should work on base of half for physics, for dynamics and for data assimilation. The importance of unexpected emergency topic was recognised, such cases will be treated operatively.
- each WG should have a leader (WGL). His responsibility will be to coordinate R&D within the WG, to present the projects to the steering committee for approval.
- The proposed structure/organisation of RC bodies could be as follows: one steering committee with each RC LACE member having one representative with the right to vote. WGL will also be the members of the steering committee. The responsible person to run the project and to supervise the budget will be the Project Leader (PL). Experience says that separation of administration & science organisation does not work, therefore it would be preferable if PL could be also one of the WGL. Otherwise, the half-time

position of PL is proposed. Another option is that PL will be a chairman of the steering group. This last option was not recommended by PL who warned SAC not to cumulate the executive and control function in hands of the same person.

- The importance of the ASC (Aladin System Co-ordinator) position was again opened. This person is needed a lot, and in decentralised conditions it should be even full-time job instead of only half-time, as it is now. ASC's main responsibility should be the merging of the RC LACE local developments and their phasing with main ALADIN code in Toulouse; and help with porting of new code versions to different computer platforms. However, ASC's terms-of-references should carefully prepared to avoid his misuse for solving minor local technical problems.
- Question of necessity to have data manager was discussed. Our experiences showed that already simple local treatment of SYNOP and TEMP observations brings lot of everyday problems. New data (for example RADAR), or regional data exchange and their usage will surely need central coordination. On the other hand, verification seems to be anyway decentralised and in case of no data assimilation procedure data management may not have the highest priority. Another question is if this kind of tasks can be treated in frame of data assimilation WG. It is clear that data management cannot be a responsibility of ASC due to its complexity.
- PL, ASC and possibly data manager shall be positions financed by central budget. Possibly WGLs could be paid from central budget, since they play a key role in the R&D in the future collaboration model and their activity and motivation is important for success of the overall project.

Organization of R&D:

- The scientific topics will be treated in the frame of research projects. The work needed to accomplish the objectives of the project can be done locally and in the form of already mentioned research group stays. Those stays should be financed by central budget (travel and living costs). Support from central budget (miscellaneous) to the institute which organise research group stays can be used to cover the expenses of the organising institute and possibly also to finance involved local people.
- Research projects can be proposed by anybody to WGL. WGL contacts people within the WG and after their discussions and common agreement he/she submits the proposal to the steering committee. The steering committee evaluates the proposed projects and prepares the RC LACE working plan that consists from accepted projects. This plan should correspond to ALADIN annual and medium term scientific plans. The RC LACE working plan is then submitted to the Council for final approval.
- Evaluation of scientific work will be the responsibility of the WG and control of RC LACE working plan accomplishment will be responsibility of the steering group.
- Scientific level of new development is responsibility of working groups. ASC is responsible to phase new developments into reference version of the code.

As an outcome of previous discussion SAC recommends following:

Despite the fact of central operational application disappearance, common R&D in the frame of RC LACE should continue. SAC also believes that RC LACE scientific goals (listed in the minutes from 11th SAC Meeting) could not be achieved without the strong scientific collaboration within the RC LACE community as a natural part of the ALADIN community. To keep already achieved high level of scientific work within RC LACE in the future a common budget for R&D is a necessity.

SAC proposes the following structure of RC LACE:

- **one steering committee with one representative per country, which would replace the current committees (SAC, TAC, FAC)**
- **creation of three topic oriented working groups (physics, dynamics and data assimilation) lead by Working Group Leaders (possibly paid positions)**
- **Project Leader (half-time position, or one of the working group leaders, or chairman of steering committee)**
- **ALADIN System Co-ordinator (full-time position)**
- **possibly Data Manager (part of data assimilation working group leader or separate position ?)**

SAC proposes the following strategy for executing R&D work within RC LACE:

- **R&D projects are defined by scientific objectives and the work needed to accomplish them. The work can be done either locally and/or in the form of research group stays. Therefore project definition should contain estimation of needed manpower, CPU and budget implications. For research group stays, travel and per-diem expences will be covered by the central budget. Financing of local expenses is left for discussion for Council.**
- **Research projects can be proposed by anybody and channelled through working group leader to the steering committee. The steering committee evaluates the proposed projects and prepares the RC LACE working plan that consists from accepted projects. This plan should correspond to ALADIN annual and medium term scientific plans. The RC LACE working plan is then submitted to Council for final approval once a year.**
- **The Steering committee meets 2 times per year. If changes are envisaged, an operational change in the plan can be made (emergency meeting or voting by e-mail)**
- **the working groups are opened to anyone outside RC LACE**
- **newcomers are encouraged to join working groups**

5. R&D in RC LACE during 2001/2002

SAC is unpatiently expecting the medium-term research plan of ALADIN. The RC LACE working plan for year 2002 has to be than adjusted to the medium-term research plan of ALADIN.

Currently, the working plan of R&D for 2002 involves following topics:

1. testing of linear truncation
2. continuation on the non-hydrostatic model development
3. 2m relative humidity assimilation to upper air analyses in 3DVAR
4. test of ALADIN with 1km resolution
5. spectral coupling

Tangent linear and adjoint code of the model doesn't follow new developments in non-hydrostatic dynamics. The issue of semi-Lagrangian tangent-linear and adjoint model adaptation to ALADIN was addressed, which is needed for a reasonable expensive 4DVAR. Some manpower shall be devoted to this problem.

6. AOB

The proposal to organise simulation of a research group stay has been proposed by Diana Klaric. The decision was taken that PSO should organise this simulation -> deadline for proposal of the topics is end of November 2001.

It was announced that SL will organise ALATNET training course during first full week of June (3.-9.6.2002). People from RC LACE are welcome to participate.

Claude Fischer opened the problem of code optimisation. This is for a long time omitted issue that shall be solved.

Next SAC Meeting will be organised in Budapest, possible together with ALATNET Meeting during March 2002.

7. Closing of the Meeting

Meeting was closed by SAC chairman.