Minutes of the 2nd Assembly of ALADIN Partners

Brussels, 5 December 1997

The second assembly of the ALADIN Partnerstook place in Brussels the 5th of December 97. Thirteen countries were represented (see list of participants in Annex 1) and Prof. A. Quinet, head at the department of Applied Meteorology of the Royal Meteorological Institute of Belgium (RMIB), acted as Chairman.

CONTENT

1. Introduction

The draft agenda has been adopted by all Partners.

In his short welcome speech Dr. H. Malcorps, director of the RMIB, has repeated his confidence in the ALADIN project especially suited for small countries like Belgium. The ALADIN Belgium model has up to now been developped at the RMIB by Mr. Luc Gérard, civil engineer, and the coordination of the scientific program is under the responsability of Prof. A. Quinet.

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2. ALADIN Belgium

The main steps of the implementation of the ALADIN Belgium model have been briefly presented by Mr. Luc Gérard. This model is coupled with ALADIN France, runs on a Cray J90 with 12 processors in about forty minutes and is presently operational. The post-processing produces GRIB data fields at 27 levels over an area of about 700 square kilometers centred over Belgium with a resolution of 7 kilometers. Pseudo-soundings, meteograms and vertical cross sections are also available.

In a next phase a special effort will be devoted to the interpretation and the validation of the products over Belgium.

At the end of the presentation, Mr. E. Legrand (Météo-France) has indicated that the high resolution of ALADIN Belgium is also relevant for a large area over the north of France. Mr. J.-F. Geleyn (Météo-France) has pointed out the problems concerning the validation of the convective precipitations, particularly during the summertime.

ALADIN Belgium is probably at present the operational mesoscale model with the finest resolution in the world.

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3. Amendments to the Memorandum of Understanding (MoU)

Mr. D. Marbouty (Météo-France) made a proposal to modify the paragraphs 4B and 5C of the MoU. The proposal was slightly amended at the request of Mr. Zielinski (Poland) and then unanimously accepted by all Partners.

The final version of the amendment of the MoU is included in Annex 2.

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4. ALADIN France

Mr. E. Legrand has presented the main steps of the ALADIN France development in 1997. These steps are the following :

- the forecasters of the Central and Regional Centres have been involved in a validation procedure. The products of ALADIN and ARPEGE were compared subjectively. The results are favourable to ALADIN products in a majority of regions in France at all ranges up to 36 hours.
- the ALADIN France domain has been extended in order to provide suitable coupling data for Portugal.
- ALADIN France is not yet fully operational. Some influence of the porting to VPP and some delay

in establishing the communications with regional centres are responsible of this state of affairs.

5. Assessment of the 1997 scientific program

J.-F. Geleyn presented a report on the evaluation of the ALADIN project.

- The main outlines are :
- continuous growth and development of the Project
- realisation at 98% of the 1997 commitments
- ``decapitalisation'' of the Project in experimented human potential is of concern.
- too frequent renewal of the research teams in several countries
- share between visitors in Toulouse of contributions in the training, validation, development, maintenance and operational tasks is too unevenly distributed between Partners
- a two classes evaluation of progresses (progress / no progress) is given in the three domains of assimilation, dynamics and physics.
- maintenance of the model. Some important delays were due to problems for cycle 6, implemented in may 97. Cycle 7 was created in july 97. The cycle8 is still under development and will be operational very soon.
- the crucial problems concern separation between research and maintenance tasks to be devoted to the Aladin visitors in Toulouse

- The main goals for the Aladin project ought to be :
- a recapitalisation in human potential to develop more work of common interest
- a need of collective spirit of the Aladin Partners to manage the code maintenance
- a real effort of coordination for visitors in the domains of scientific development and code maintenance in Toulouse. These two domains should be separated to avoid any further problems.
- a moderate shift of interest from physical parameterisation to dynamical and numerical problems

From the discussion it appeared that :

- a two months period of instruction in Toulouse is necessary to become familiar with the Aladin code
- a supervision and a diffusion of the problems encountered in the model has to be organised
- a written documentation on the model should be considered a priority
- -a validation of several aspects of Aladin France has to be implemented, for instance the estimation of the probability of convective events in summertime
- J.-F. Geleyn insisted on the necessity to separate research and maintenance tasks
- a feedback between the Aladin versions working on workstations and the core version at Toulouse is highly recommended
- Mr. D. Marbouty pointed out that ten skilled persons at any time in Toulouse appeared as a minimum staff for decisive progress and that it would be a reasonable target to share this on a fifty fifty basis between Météo-France and its Partners (J.-F. Geleyn's estimate was a necessary involvement of the Partners for 2.6 people in core development and 1.7 people in central maintenance, figures averaged over the year).

6. Recent progress inside RC-LACE

Dr. I. Obrusnik notifies that the integration of the Aladin model in the operational forecasts area is working well. This integration has been tested successfully during the severe floodings event in july 1997.

The first phase of Aladin/RC-LACE operations will end in mid-98.

At that time a new super-computer (NEC SX4C/3A) and a new centre for the model R&D will be installed in Prague. It will allow a better distributed operational use of ALADIN.

- The planned work concerns developments in :
- data assimilation
- non hydrostatic modelling
- reliable operational environment
- development of new research activities

On the other hand, it is recognized that a sufficient number of people should be maintained in Toulouse in order to guarantee the coordination with the LACE international group in Prague.

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7. Operational problem : switch to ISBA

Concerning the new parameterisation of the soil-atmosphere interaction, reference is made to a previously distributed text. Bulgaria and Morocco mentioned the need for some delay to prepare the switch. Austria will perhaps send a scientist in Toulouse. Because of his absence and the co-operation between Bulgaria and Austria this will result in a delay of some weeks in the preparation of the switch in Bulgaria.

Météo-France stressed again the necessity to go altogether to unit ``2''. Remaining with the old parameterisation would make Aladin suffer for a longer time of the weakness of unit ``1''. Nevertheless nobody is forced and if one consortium member has to postpone for genuine reasons, then the switch will be postponed for all members. The size of the new files is only 1% more than in the previous version. Answering a question from Belgium, J.-Fr. Geleyn declared that moving to AL08 will have to wait the `cleaning' of the previous cycle. This will result in phasing AL08 of ALADIN with Cy18 of ARPEGE but this should not induce any additional important delay.

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8. The Al Bachir application

In Morocco four people are involved in the Project with a great flexibility concerning their tasks for the maintenance or development. The radiances of TOVS are not for the moment assimilated to compute the vertical temperature profile. A moroccan scientist in Toulouse investigates the use of TOVS in optimal interpolation or 3D-variational assimilation. To assimilate radar data, 3D- or even 4D-variational assimilation is needed.

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9. The code maintenance

Mr. D. Marbouty remembered that Météo-France cannot run alone the Aladin Project. So it is mandatory that the consortium Members devote staff to the maintenance AND the development of Aladin. As Arpège runs only in Toulouse and since the environment is only available there, deporting is not easy. Besides, the HIRLAM Project encounters the same staffing problem. For the new RC-LACE situation, for instance, a team of 10 to 15 people working part time on the common effort is needed (in Prague and/or Toulouse), not one or two!

A ``concentrated'' effort is preferred because distant contribution is very difficult. All consortium members benefit from Météo-France and ECMWF support. So it would be very appreciated to receive help without begging for it.

The Czech representative admitted that man-power is a real problem. He proposed to make an ``experts-directory'' as some countries are better in maintenance and others in development. A possible repartition of tasks could be that general development should be performed in Toulouse while ``special'' developments could be conducted in Prague.

J.-Fr. Geleyn argued for a balance between maintenance and development inside each country and, in addition, to avoid duplication of effort. The real danger is a ``self-service'' mentality without participation in maintenance.

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10. ALADIN-LACE

Mrs. Bubnova (Czech Republic) stressed in her presentation especially the fact that the error in the diurnal cycle is a reflection of the PBL-parameterisation deficiency during night-time. More details on this can be found in Aladin Newsletter 5 .

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11. Inter-Partners collaboration

The MEDIA model is ready and Météo-France is willing to give the Aladin members a license free of charge for national use. Météo-France is also interested in a collaboration for the development of an Aladin MEDIA model for emergency situations. Dr. I. Obrusnik is very glad about this proposal and wishes also a collaboration on how to feed hydrological models with precipitation forecasts. Romania also expressed its interest in improving the model by the use of Aladin fields. Poland also appreciated very much the Météo-France proposal.

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12. Address book

13.The 1998 Aladin Partners commitments

These commitments were presented during the Assembly.

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14. The 1998 scientific program

The 3D-Variational data assimilation is almost ready. Progresses in this domain up to a 4D-Variational assimilation scheme would be helpful for nowcasting.

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15. Place and Date of the next assembly

Dr. I. Obrusnik has invited Aladin Partners for a third assembly in Praha (Czech Republic) in the beginning

of November 1998.

16. Miscellaneous

Dr. I. Obrusnik raised the problem of the management of crisis situations. Mr. D. Marbouty indicated that the national (or multi-national) ALADIN applications are the property of the concerned Partners while the ALADIN code is the common property of all Partners, Météo-France ensuring only the administrative coordination of the project and the logistic of the core maintenance of the code.

The exchange of the ALADIN numerical products and possible share of returns in case of commercial activity ``outside Partners and ECOMET'' are regulated by the MoU. Following a proposal of J.-Fr. Geleyn a statement modifying this constraint in case of emergency situations (like the flooding of july 97 mentionned by the Czech, Polish and Slovak delegates) will be added to the preamble of the MoU (action to be taken for the next Assembly).

Annex 1

List of participants to the ALADIN Partners assembly :

COUNTRY	PARTICIPANTS
Austria	Mr. Thomas Haiden
Belgium	Mrs. Josette Vanderborght Mr. A. Quinet Mr. Luc Gérard Mr. Willy Struijlaert Mr. W. Struijlaert
Bulgaria	Mr. V. Spiridonov
Croatia	Mr. Zorslav Subaric
France	Mrs. A. Rigaud Mr. J.-Fr. Geleyn Mr. D. Marbouty Mr. E. Legrand Mrs. A. Rigaud

Hungary	Mr. I. Mersisch Mr. A. Horanyi
Moldavia	
Morocco	Mr. M. Selassi Mr. A. Mokssit
Poland	Mr. J. Zielinski Mr. S. Reichhart Mr. R. Klejnowski Mr. J.Sadon
Portugal	Mr. M. Almeida
Czech Republic	Mrs. R. Bubnova Mr. I. Obrusnik
Romania	Mr. I. Sandu
Slovakia	Mr. S. Skulec
Slovenia	Mr. M. Jurgele

Annex 2

Amendments to the Memorandum of Understanding

· 1) The first sentence of the paragraph 4B becomes :
`` In the same case but with either another organization in the country of the Partner or the NMS of a non participating country being involved through an official researchagreement, the same rule applies provided that : "

· 2) Add a sentence at the end of the current paragraph 5C :
``In particular, in case of use of external computing resources for running the Aladin code, the Partners must sign a non-dissemination and restricted-use agreement with the provider of computing resources. ``