

Minutes of the 1st Assembly of ALADIN Partners

25 November 1996, Paris, FRANCE

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Report of the First Meeting of the Assembly of ALADIN Partners

The agenda of the meeting is in [Annex 1](#)

1/ Opening of the meeting and morning session in Frantour Hotel

Mr Jean-Pierre Beysson, Président-Directeur Général of Météo-France, both organiser and chairman of the meeting, opens the morning session (the preface of the distributed informal brochure in [Annex 2](#) covers the content of the introductory speech) and then proposes to start the technical and scientific presentations. They will not be detailed here, since the booklet distributed to participants during the meeting includes already a description of these presentations.

2/ Afternoon session in Frantour Hotel

Historical accounts from Mrs Geleyn and Skulec

Prof. G.O.P. Obasi, Secretary General of WMO, joins the meeting just after lunch and J.-F. Geleyn starts the afternoon with the « historical account of ALADIN as seen from Météo-France », starting from the beginning in 1990. It can be noticed that the specification document prepared at that time by A. Joly (see distributed booklet) anticipated very well the present almost for all points. Finally, a few transparencies show the main concepts of the project and some statistics about manpower and funding.

Then, Mr Skulec presents the point of view of ALADIN Partners through an update of the Regional Centre for Limited Area modelling for Central Europe (RC-LACE). The history starts with an expert meeting in Vienna in October 1992, followed by the signature of a MoU. Then, the present structure (President, Project Manager, SAC, TAC, FAC, Project Scientific Officer, Decentralised Research Units and Toulouse Team)

and the activities of this organisation are presented. A major event was the launch of the ALADIN/LACE operations on the J916 in Toulouse on the 1st of July 1996.

Discussion

- JP. Beysson introduces the main points to be discussed : comments about the MoU ? Rules for the next meetings of this assembly of partners, date and place of the second meeting? Futurescientific orientations and national commitments?
1/ The MoU is agreed in its present shape, a slight modification being introduced due to the absence of the Director of the Moroccan Meteorological Service. Morocco will follow the same procedure as Spain and Moldavia with the freedom to sign or not the MoU during the next six months.
2/ One annual meeting is estimated as necessary and sufficient for the assembly to treat science and policy aspects. The aims of the assembly are not only to take decisions about the main orientations of the project, but also to have an additional chance to exchange information.
Although Météo-France is ready to ensure the secretariat of these meetings, Mr Beysson suggests that the next one does not take place in France. There should also be a Chairman (implicitly the host), acting as focus point during every meeting and for one year thereafter until the next meeting. Mr Malcorps expresses his wish to host the next meeting in Brussels, proposal unanimously accepted by the assembly.
3/ Call of opinions about comments on MoU, scientific commitments, manpower dedicated to the project, long term policy, ...(in Annex 5, the MoU as signed on the 25th November 1996 and in Annex 6, more detailed working documents sent by some of the participants on this topic and collected before and after the meeting).
- France (M. J.-F. Geleyn)
The main priority for Météo-France is to keep the project united and to make it fit with ARPEGE. It means not much freedom in that sense.
There are however two actions which are considered as important for the future : the development of a new dynamics, too close to ARPEGE one's for the time being, and a long term target which is the non-hydrostatic variational data assimilation with new data sources.
The estimated manpower to be devoted to the project is 76 person.months.
- Hungary (Dr. I. Mersich)
Keeping the operational application running is the first priority, after that comes the development of verification and an involvement in data assimilation, including co-ordination of the « targeted action ». All together, it should represent 24 person.months.
- Croatia (Mr. M. Matvijev)
The NMS of Croatia wishes to dedicate 30 person.months/year to the project on problems connected to RC-LACE scientific and technical concerns (26 person.months on technical things). The main topics are : coupling of ALADIN with an oceanographic model (in collaboration with the University of Zagreb, with possible support from Government), further development of the HRID diagnostic package.
- Czech Republic (Dr. I. Obrušnik)
34 person.months should be dedicated to the project, mainly to the development of non-hydrostatic/semi-Lagrangian schemes, air pollution dispersion (on supercomputer or workstation), verification, operational character of the RC-LACE application, especially for use in hydrology problems.
- Romania (Mr. M. Ioana)
A total of 58 person.months (including 8 person.months in Toulouse for a Ph.D.) should be devoted to the project, with main orientations towards operations, verification, data assimilation and transport models. The NIMH is ready to collaborate in all fields and to reinforce the "revolution" started with ALADIN on workstation in Romania.

- Austria (Pr. P. Steinhauser)
Manpower should be maintained at the same level as present. Precipitation verification will be one of the main subjects of interest (in connection with MAP).
- Bulgaria (Pr. V. Sharov)
Five persons can be involved in the project. The main topics will be : data assimilation, extension of the Ph.D. scheme to Bulgaria (study on semi-Lagrangian properties), workstation version, physics.
- Morocco (Mr. R. Ajjaji)
M. Diouri could not attend the assembly and therefore M. Ajjaji can provide mainly indications about high priority topics : data assimilation and coupling, verification of precipitation, physical parametrizations. Concerning manpower, 24 person.months (unofficial figure) should be devoted to ALADIN.
- Poland (Pr. J.. Zielinski)
The IMWM will increase its activities in the project, the amount of persons going from 2 for the time being, up to four or more in 1997. The objectives are still difficult to define, but verification of precipitation forecast, wind at high resolution, use of ALADIN products in the operational forecast will be probably the main axes. Discussion on topics of interest has already started with Météo-France and two polish scientists are presently working in Toulouse to be able to run the model in new conditions and environment in Cracow.
- Slovakia (Dr. S. Skulec)
Work on the verification of ALADIN through pseudo-TEMPs, precipitation verification, the development of the workstation version and physics (including a Ph.D. dedicated to the development of a simplified physics and its adjoint for future needs in variational data assimilation) will represent 29 person.months.
- Slovenia (Mr. D. Hrcek)
The same manpower as before will be available, however with some possible commitments for the Ministry of Defence (provision of ALADIN products). The total effort in term of manpower should go up to 36 person.months. The main topics will be : ALADIN on workstation, use of ALADIN in case of nuclear pollution (possible funding from the nuclear safety administration, Ministry of Environment). Slovenia benefits already from the possibility to run ALADIN (it was part of the initial objectives).
- Spain (Mr. Segovia)
As observer in this assembly, Mr. Segovia mentions the wish of the INM to maintain a certain collaboration with the ALADIN group. The new Director is presently reanalysing the situation to define in which way this may happen.
- Belgium (Dr H. Malcorps)
The collaboration in the ALADIN group is very new, it is difficult yet to do precise proposals for the IRMB contribution. The willingness of the IRMB is clear and contributions to the project will be defined soon.

During these interventions, a parenthesis is opened by Mr. G. Radnoti in the name of RC-LACE Scientific Groups on two possible sub-projects : verification (the Toulouse part of verification needs the complement of data available only in other countries for fine mesh verification) and data assimilation (efforts particularly on 3D-VAR with already interested or involved ALADIN countries like Morocco, Romania, Bulgaria, ...; a working group should be established soon and work in Toulouse with scientific recommendations). This initiative would start in similar conditions as the ALADIN Project in 1991 when a small international group worked during one month to study the feasibility of the project and drew the first guidelines. Météo-France is pleased to go to 3D-VAR in this perspective and Mr. Ajjaji shows interest to the proposal, our Moroccan colleagues being the analysis and data assimilation experts in the ALADIN group (still need official approval from Mr. Diouri of course).

J.-F. Geleyn draws a summary of the previous speeches : the explicitly or implicitly proposed contributions represent already a total of 330 person.months for one year (compared with 300 presently). This manpower is still manageable. He supports also the above mentioned proposal of G. Radnoti.

He notices a lot of new topics to be explored, but not much about dynamics (only from Croatia, Czech Republic and France). Therefore, Belgium and Portugal could continue to go in this direction to make a better balance between different subjects. This will be treated in a different spirit than the resolution ratio problem which also belongs to dynamics (under management of LACE, and especially Slovenia).

Mr. Matvijev suggests that all countries which did not send anything do it as soon as possible in order to complete the document distributed during the meeting (possibly before the 2nd of December 1996).

Close to the conclusion of the session at Hotel Frantour, Pr. G.O.P. Obasi congratulates the ALADIN group for an excellent collaboration. He recalls that NWP is an important topic at WMO and appreciates the transfer of technology and expertise in the frame of the project. The ALADIN action is thus fully supported by WMO.

3/ Late afternoon session at the Ministry of Transports

The signature of the MoU is done around a table chaired by the French Minister of Transports, Mr Pons, after two speeches of Mr Pons and Pr Obasi (see [Annex 3](#) and [4](#) respectively). The meeting is closed by a cocktail.

List of addressees :

| | |
|----------------------------|-----------------------------|
| Mr Ajjaji, Morocco | Mr Marbouty, France |
| Mr Barré, France | Mr Matvijev, Croatia |
| Mr Beysson, France | Mr Mersich, Hungary |
| Ms Bubnova, Czech Republic | Mr Obasi, WMO |
| Mr. Diouri, Morocco | Mr Obrusnik, Czech Republic |
| Mr Geleyn, France | Mr Radnoti, Hungary |
| Mr Hoffman, France | Mrs Rigaud, France |
| Mr Hrcek, Slovenia | Mr Segovia, Spain |
| Mr Ioana, Romania | Mr Sharov, Bulgaria |
| Mr Ivanovici, Romania | Mr Skulec, Slovakia |
| Mr Klinski, Poland | Mr Sofroni, Moldavia |
| Mr Lambergeon, France | Mr Steinhauser, Austria |
| Mr Legrand, France | Mr Zielinski, Poland |
| Mr Malcorps, Belgium | Mr Zagar, Slovenia |

ANNEX 1

AGENDA OF THE MEETING

First Meeting of the Assembly of ALADIN Partners

25th November 1996

Paris, Hotel Frantour

Schedule

10H30: Opening of the meeting. Welcome by J.P. Beysson.

10H45/12H30: Reports about pre-operational ALADIN implementations by R. Ajjaji, R. Bubnova, V. Ivanovici, E. Legrand and M. Zagar

12H30: Lunch

13H45/14H30: Presentation of the project to WMO by Mr J.F. Geleyn and Mr S. Skulec.

14H30-16H15: Future plans for 1997 (Manpower commitments, scientific and technical objectives, overall planification). Working procedures of the Assembly of Partners , Time and place of the 1997 meeting.

16H15-16H30: Bus for going to the French Ministry of Transports

16H45: Formal ceremony of Signature of the MoU about ALADIN.

Cocktail.

Participants

· NMSs Directors of Austria, Belgium, Bulgaria, Croatia, Czech Republic, France, Hungary, Morocco, Poland, Romania, Slovakia, Slovenia

· WMO representative

· RC-LACE permanent team

· SELAM representatives

· Project Managers of the INM-Météo-France common project

· Members of the ALADIN Team present in France and reporting on preoperational implementations

· Members of Partners' delegations

· Météo-France's ALADIN involved management people

ANNEX 2

INFORMAL BROCHURE PREFACE

Preface of the informal brochure prepared by the ALADIN team on the occasion of the first meeting of the Assembly of ALADIN Partners by Jean-Pierre Beysson,

Président-Directeur Général of Météo-France,

chairman of the first meeting of the Assembly of ALADIN Partners

Trying my best to speak in the name of all my Colleagues Directors of National Meteorological Services involved in the ALADIN project, it is my great pleasure to preface this informal brochure, prepared by the ALADIN international team in Toulouse, on the occasion of the first Assembly of ALADIN Partners. The highlight of this first Assembly will of course be the signing of the Memorandum of Understanding which will from now on fix the frame of evolution of the ALADIN international co-operation. This signing will be honoured by the presence of the French Minister of Transport and of the General Secretary of WMO.

This is indeed an important occasion for us but, like this brochure, we should try and keep it also a bit informal. For myself I will therefore try not to insist solemnly again on the mutually beneficial aspect of what we have achieved, nor to stress how much dependent on each other we have become in Numerical Weather Prediction (NWP) matters. I prefer to concentrate on the causes of the success and of the implications it will have for us.

Nearly on the day, six years have passed since Météo-France sent to six other Services the invitation to participate in the project that would later get the name ALADIN. I think it is fair to say that what happened since has fully vindicated the choices made at that time among, let us say it frankly, much scepticism. We are now sure that the decisions to build a truly integrated international team before developing the system, to conceive it as a flexible tool for both research and operations and to rely on the IFS/ARPEGE backbone for streamlining this endeavour were based on sound principles. More importantly we were able to maintain, even with more and more contributing Partners, a strict respect of their implications for a disciplined day to day work.

The luck of the calendar also brings us now two further proofs of the dynamism of the project: the first serial of four Ph.D. studies on ALADIN by foreign students spending half of their time in Toulouse has just been successfully completed (while a new group of five students is taking over); the team assembled in Toulouse is reaching an all-time record number of 28 people (from 12 Countries, France included) this week.

In earlier phases of the project, this dynamism was also one of the building stones when international sub-entities (RC-LACE and SELAM) were created, this pushing ALADIN further towards **what we believe to be the most modern form of Limited Area Model operational exploitation**: reasonably small domain / high resolution applications with Lateral Boundary Conditions provided as early as feasible from an already high resolution model, the chain starting in this case with the stretched version of ARPEGE operational in Toulouse.

We are going to sign the MoU for consolidating all what we have achieved, but **we should surely not believe that the efforts will then be behind us**. Our NWP specialists will anyhow tell us how many fascinating scientific and technical challenges are still ahead, this is their role. But ours is to make sure that all the past, present and future efforts around ALADIN will have a durable impact on at least three things: the satisfaction of our customers and clients, through a better use of better numerical products in day to day forecasting; the consolidation of a strong short-range NWP community in Europe and around the western Mediterranean; and a better relation between our Services in all other matters.

I indeed know that the «ALADIN strategy» is sometimes called as example for other envisaged projects.

This is quite flattering for us as initiators of the project, but ALADIN was built around a crucial constraint that should not be forgotten: **we initially said what we would do and we always did what we had then said**, whatever temporary disappointments we may have encountered. If we can be reassured that this spirit would prevail in any other proposed similar endeavour, **we are of course ready to explore with you potential new areas of collaboration**.

Coming back to ALADIN, I would like to insist on what I consider to be the real originality of our common work. **We have placed the preservation and increase of the know-how of NWP teams in all Partner National Meteorological Services at the heart of our strategy**, regardless of the overhead it would represent with respect to a more «black-box-exchange-type» approach. The above-mentioned dynamism of the project, its increasing number of differing operational applications and its capacity to attract new Partners accepting the associated constraints indicate that this bet has been a successful one.

But the best proof of the wisdom of our strategy may well be ahead of us. In the world of to-morrow, where distances between working places will become a more and more abstract factor, being able to work in many places at the same time in the same manner on the same code might well be far more important (and perhaps even easier to achieve) than mastering the documentation/customisation process associated with the much heralded so-called «freeware» dissemination of NWP systems. In that sense we should believe that ALADIN is a real prototype for the truly international NWP collaborations of the next century and we should hope that its example will become contagious for other projects.

So it is of the highest importance for all of us to do our utmost to continue on that way and to maintain a good trust within a group from which all of us are winners.

Le Président-Directeur Général

de Météo-France

Jean-Pierre Beysson

ANNEX 3

FRENCH MINISTER'S STATEMENT

Statement on the occasion of the signature of the Memorandum of Understanding of the ALADIN Project

by Mr. Bernard Pons

French Minister of Equipment, Housing and Transport

Mr. Secretary-General of the World Meteorological Organization,

Directors,

Ladies and Gentlemen,

I wish to mark my support on the occasion of the signing of the ALADIN co-operation agreement, since in many ways this is an exemplary operation, which I would like to see repeated outside the community of meteorologists.

ALADIN, as its name indicates : « Limited Area, Dynamic Adaptation, InterNational development », is a meteorological forecasting model which permits to adapt the ARPEGE model of Météo-France over a very limited-area with a very fine mesh of 10 to 15 Km.

Today it is functioning in an operational manner in France, Romania, Morocco,, Slovenia, and it is running in Toulouse for the benefit of the LACE group of countries : Austria, Croatia, Hungary, Czech Republic, Slovakia and Slovenia.

Leading specialists consider that it constitutes one of the best realisations in the world in the field of limited-area models. The recent international experiment COMPARE allowed to confirm this.

It is thus first and foremost an exemplary operation on the technical level.

It is also an exemplary operation because it has brought together partners with whom France has traditionally established co-operation : we have here countries from the European Union, a country from North Africa and numerous countries from Central and Eastern Europe.

However, the major tangible advantage brought about the signing of this agreement, is that it constitutes a true and balanced partnership which benefits all those participating.

Météo-France has certainly contributed with the expertise of its work force and the necessary computing facilities, but it could not have developed ALADIN alone. We therefore consider that we are beneficiaries of this operation.

The other partners, all of you, by your contributions have not only recuperated a tool, that is to say a model : you have strengthened your expertise in numerical forecasting, which will allow you to implement this model to satisfy the needs of your country, and beyond that, to continue your efforts in this field. I therefore hope, and your presence here is witness, that you also consider this operation to be beneficial.

Our profound hope, which is understood in this agreement, is that the operation will not stop here, once each has returned home.

We consider that the development of the next generation of forecasting models is beyond the scope of countries working alone. It is necessary to bring together considerable intellectual means which can only be found through international collaboration and the only means of establishing such collaboration is to do this with partners grouping their expertise for the realisation of a common objective.

It is this very specific arrangement which has been established by the signature of this agreement which make us the joint owners of the model. It is a very different course from that which has been followed until now, where a country having more means at its disposal than others develops a model and then offers it to the meteorological community : but in this case it does not allow the emergence of new competence in the receiving countries.

It is this innovative aspect of the ALADIN approach which seems to me the most remarkable and which has not escaped the notice of the World Meteorological Organization, which has wished to show its extreme interest in an outstanding manner with the presence here today of the Secretary-General, whom I should like to thank most warmly.

It is moreover to promote this type of relationship between the National Meteorological Services within the World Meteorological Organization, that the French Government has proposed the candidature of Jean-Pierre Beysson for the post of 3rd Vice-President within this organization.

I should like to thank you all for your participation in an operation which I believe holds great promise for the future.

Mr. Bernard Pons

French Minister of Equipment, Housing and Transport

ANNEX 4

WMO SECRETARY-GENERAL'S STATEMENT

Statement on the occasion of the signature of the Memorandum of Understanding of the ALADIN Project

by Professor G.O.P. Obasi

Secretary-General

World Meteorological Organization

Your Excellency, The Minister of Equipment, Housing and Transport, (M. Le Ministre)

The President of the ALADIN Project,

The Permanent Representative of France with WMO,

Dear Colleagues,

Ladies and Gentlemen,

It is indeed a pleasure for me to be here today, on the occasion of the signature of this important Memorandum of Understanding (MoU) on the ALADIN Project (Aire Limitée, Adaptation Dynamique, développement InterNational) which enjoys high-level government support. I wish to express the appreciation of the World Meteorological Organization (WMO) as well as my own to Mr Jean-Pierre Beysson, the Permanent Representative of France with WMO for his kind invitation to me, on behalf of all participating Members, to join on this very important occasion.

I understand that the Project is aimed at fostering co-operation among the national Meteorological Services for strengthening their operational weather forecasting capabilities, and for enhancing their associated research activities which are so vital for ensuring the future progress and development of the Services. In this regard, I am particularly pleased to note that this Project brings together as equal partners, twelve WMO Members countries whose Meteorological Services are at different levels of development. The Project is an example of the type of co-operation which has been recommended and encouraged by the World Meteorological Organization. I therefore wish to take this opportunity to express the appreciation of WMO as well as my own to you, Your Excellency, and through you to the Government of France for your active support to such a Project as well as to the Programmes and activities of WMO.

I am aware of the achievement that have been made within the Project and that today's agreement is meant to define the operational aspects of the Project and the modalities for future co-operation. The Project has generated innovative approaches to numerical weather prediction, strategies for organising international projects, and the application of advanced technology. It has also enabled the development of operational systems which will significantly enhance the forecasting capabilities of the participating Member countries.

In this regard, the operational potential of ALADIN is very impressive. It will allow the different Partners to use the powerful fine mesh models required for mesoscale weather forecasting, where the local and small scale orographic effects are important determinants. The models are useful for nowcasting, severe storms predictions, as well as the prediction of other weather-related events which are so critical for the economy of the countries concerned.

I am also pleased to note that the Project has enabled a number of scientists of the participating countries to produce several Ph.D. theses and many published scientific papers. The Project has also made significant contributions to the recent COMparison of Mesoscale Prediction And Research Experiment - PYRénées EXperiment (COMPARE-PYREX), intercomparison of mesoscale models, which is sponsored by the

WMO Working Group on Numerical Experimentation. I look forward to the continuation of such symbiotic relationship between the ALADIN Project and the relevant activities of WMO.

In conclusion, I wish to congratulate all the countries for the excellent initiative taken for the implementation of the ALADIN Project, and also wish to assure them that WMO, within its mandates, will continue its support to the Project.

Je vous remercie.

Professor G.O.P. Obasi

Secretary-General

World Meteorological Organization
