

Introduction and Comments by the Project Leader

This HIRLAM-5 Newsletter NL40 is thinner than usual, but this is not due to any reduced level of activity in the Project. On the contrary, a large number of developments have and are taking place. Many of the write-ups of the recent developments and results appear elsewhere, in the proceedings of the three workshops/mini-workshops that have taken place in the preceding 4 months.

The Hirlam results from ISBA surface scheme at the time of the implementation were presented in the Report from the Surface Process, Turbulence and Mountain Effects Workshop in Madrid, and you should all have received a copy (N.B. we also put all the publications in pdf on [HEX NET](#)). In fact, some of the results were produced in a re-run after the Workshop and are therefore quite recent.

The singular vector and estimation of forecast error mini-workshop in Norrköping showed some preliminary results, but was more of a Scientific Planning nature. We clarified many things for both a simple way of estimation of forecast errors for the data assimilation and longer term work on estimation of forecast uncertainties (for the 24-48 hour forecasts). The proceedings should have arrived just before this Newsletter. Furthermore the more immediate work on 4D-VAR was planned and in January more progress on demonstrating 4D-VAR was made.

In January was the big Variational Data Assimilation and use of satellite data Workshop in Helsinki (P.S: check out the pictures on [hirlam.fmi.fi/DA Workshop/](http://hirlam.fmi.fi/DA%20Workshop/)). It was well attended and there were interesting presentations and discussions and they are very relevant for the future of our Hirlam work. The deadline for the manuscripts is end of February and the proceedings should be printed later in March.

The Reference system (β -releases) has had one technical upgrade and another, major, meteorological one. The ISBA surface scheme together with its data assimilation have now' been introduced after several years of research and substantial coding effort and technical migrations and many, many tests. It is with great pleasure that I note the important reductions of T_2m and T_d2m biases, both in the reports from the Madrid Workshop proceedings and from very recent tests. Also the planned verification upgrades have now been implemented.

The discussions on the continuation of the Hirlam Project are well underway. The HIRLAM Advisory Committee has taken up the discussion during the last three meetings, particularly in the May 2001 and October 2001 meetings. For the latter meeting, I summarised the general views and expanded a bit more in a Strategy paper. Some of you have seen the draft version, but I thought it could be relevant to enclose the updated version in this Newsletter. This is updated with the views aired at that last HAC meeting, but not with e.g. more recent ideas or details that emerged in the discussions at the Helsinki Workshop.

The Council members were asked in the autumn to come up with their views on a future cooperation, in a completely open manner and considering all possibilities. Their replies were received before the December Council meeting and I made a compilation paper of the replies and we had a very open and productive discussion at the Council meeting (see the minutes on [HEX NET](#)).

Very briefly, all were in favour of continuing the cooperation within the same configura-

tion of countries. Some members disagreed with the statement that the goal of providing the best available products was not achieved and argued that indeed Hirlam gave them the best forecasting products, and particularly for certain parameters where verifications showed this. Other members complained about the quality of the products or about the shortcomings in the Project in providing a better Reference system for operational implementation. It was recognised that significant improvements have been achieved with the 3D-VAR implementations and that one should wait for the model physics developments just being implemented before judging the progress in HIRLAM-5. The emphasis in a continuation Project will however be more focussed on the meso- γ forecasting, as also discussed in the Strategy paper, but with a coupling model as well. Ways of better organising the work or how to ensure staffing in the priority areas will be discussed in more detail. A discussion paper describing options for activities and organisation in a continuation Project has been sent to the Council members for informal replies and comments. These will then be compiled and discussed in a meeting with the Council members (Directors or deputies) in Porto just after the All Staff Meeting. The outcome of this should form the basis of a Memorandum of Understanding, further discussed at the HAC at the end of April. Then, hopefully in June, we should have the proposed candidates for the new Management Group and HAC Chairman and a draft MoU for the Council to decide on.

I will see many of you at the ASM in Copenhagen and, apart from many presentations we plan to discuss the overhaul of Hirlam, and in particular the organisation of the physics, as this is a crucial issue, both scientifically and coding wise. (There will be a broader system design Workshop in May in Toulouse where also collaboration is an issue).

Per Undén, 15 February, 2002.

Recent meetings:

- Hirlam singular vector mini-workshop, 19-20 November, SMHI, Norrköping.
- HIRLAM Council Meeting No. 4, 9 December, Reading.
- Variational Data Assimilation and remote sensing, 21-23 January 2002, FMI.

Forthcoming meetings:

- HIRLAM-5 visit to Met Éireann and Management Group Meeting, 27 February - 1 March 2002, Dublin.
- Hirlam All Staff Meeting, 3-5 April 2002, DMI, Copenhagen.
- HIRLAM Council Follow-on project meeting, 9 April, Porto, Portugal.
- HIRLAM Advisory Committee Meeting, 26 April 2002, Reykjavik.
- SRNWP Workshop on NWP system design, prel. 13-15 May, Toulouse.
- HIRLAM Council Meeting No. 5, prob. 26 June, Reading.
- Mesoscale modelling, September 2002, Met Éireann, Dublin.