

# **DRAFT PROPOSAL FOR A WORKSHOP ON (FULLY BI-PERIODIC) SPECTRAL LIMITED AREA MODELLING IN EUROPE**

**Copenhagen, 2-3 June 1994**

**Background and Foreword :** There are currently three or four proposed techniques for spectral limited area modelling, the simplest one in design (but perhaps not in use) being the one first advocated by Machenhauer and Haugen (1987). This proposal was tested, in its time, in a shallow water version. Nowadays, two fully developed 3D primitive equations versions exist, both in Europe : the spectral version of the HIRLAM system and the so-called ALADIN model, originating from the global ARPEGE/IFS system. Furthermore there exists already a good level of collaboration around those two general software packages to which these two spectral LAMs are so closely linked. Thus, it appears timely to make the specialists of these two models meet in a slightly more formal manner than up to now (inside meetings of wider scope) in order to :

- \* review their opinions on the relative advantages and disadvantages of this particular solution to the problem of spectral limited area modelling ;
- \* compare the technical solutions they used to construct their baseline versions in an attempt to make each other benefit from a few details that might be better treated on either side ;
- \* show, when available, comparisons of results with either the equivalent finite difference HIRLAM model or the global variable mesh version of ARPEGE ;
- \* review future possible areas of progress where spectral techniques might offer a basic advantage (simplicity and/or cost-effectiveness) against other solutions, like for instance non-hydrostatic and variational applications.

**Financial aspects :** The common participation of Denmark, France and five Central and Eastern European Countries to a CEE financed "PECO" program offers the main (but unfortunately not sole) source of financing for this venue. The current situation is the following :

- \* 9 KECU from the PECO contract ;
- \* 2 KECU from Météo-France CNRM/GMAP budget ;
- \* Several participating countries to the ALADIN project (A,CZ,H,SL,SV) are being made aware of the tentative plans for the workshop and asked whether they could send one person (not in Toulouse at that time) on their own money ; the answers are not yet definitive but we can foresee a rate of success of this step of around 50% ;
- \* Some "nordic" participants might link the occasion with other duties in Copenhagen and hence ease the burden on the financing side of the workshop.

## **Tentative list of participants (optimistic one)**

DMI : Laursen (local organiser), Christensen, Huang, Sass , ...

Météo-France : Geleyn (coordinator PECO) , Hoffman

DNMI : Haugen

INMS : MacDonald

MPI : Machenhauer

SMHI : Gustafsson, K., Ilen

CHMI : Bubnova, Janousek

HMS : Horanyi, Radnoti

IMHR : Caian, Ivanovici

SHMI : Janiskova

UL : Rakovec

ZAMG : Von der Emde

**Practical organisation :** Still to be debated, but the above mentioned four question marks could form

the basis for four sessions build on the principle :

a) Formal presentation ;

b) General discussion ;

c) Formalisation of conclusions and/or recommendations (depending on the theme)

Short (or extended for those wishing it) abstracts would, together with the product of "c", provide a written trace of the workshop in a manner easy to handle afterwards (probably in Toulouse, for further use in CEE oriented reports about the PECO contract).

Draft proposal open for further discussions !