Some conclusions from the informal meeting between HIRLAM, ALADIN and Meteo-France representative, held on March 18th, 2004 (Toulouse) besides the <u>ALADIN-NH training course</u>

Some corrections resulting from further discussions or informations have been added when required.

Objective :

Having a more clear view of HIRLAM strategy concerning mesoscale NWP and cooperation with the ALADIN consortium.

Participants :

- HIRLAM (management group) : Per Unden, Bent Hansen Sass, Gerard Cats
- ALADIN : Doina Banciu, Dominique Giard, Patricia Pottier
- Meteo-France (CNRM) : Francois Bouttier, Jean Pailleux and Joel Noilhan, invited at the very last minute.

Definition of HIRLAM strategy :

- agreement between ALADIN and HIRLAM goals concerning mesoscale NWP
- introducing HIRLAM specificties into a code common to both ALADIN and HIRLAM partners, i.e. plugging-in a few HIRLAM specificties into ALARO
- using ALARO for very high resolution first (AROME)
- then extension to larger scales, i.e. to all HIRLAM applications

Main steps for the coming year :

1. checking whether the rotated lat-lon geometry has really smaller drawbacks than the ALADIN projections when used for large domains
   if yes, checking whether the rotated lat-lon geometry can be formulated as another projection (non conformal) in ALADIN: this would be the only way for including easily this option
   -> HIRLAM staff with some help from ALADIN (discussions first, Pierre Benard is the main contact point)
2. training on Meso-NH physics : need for a documentation
   -> CNRM/GMME
   (one has to mention that Meso-NH 3d turbulence is not considered for AROME, since there may have been some misunderstanding - information received on March 22th)
3. coding a specific interface for HIRLAM physics in ALARO (according to HIRLAM people it should not be so difficult because of the existing common points with Meso-NH) -> HIRLAM staff with advise/directives from ALADIN, i.e. according to the rules defined for ALARO (Jean-Francois Geleyn is the main contact point)
4. first experiments with ALADIN NH dynamics and HIRLAM physics, not waiting for the prototype (not available within the end of 2004, while HIRLAM is willing to start learning NH dynamics and performing experiments very quickly) -> Bent Sass and Eric Bazile, to update the interface to HIRLAM physics in ALADIN (if this can be done easily, else adiabatic tests only) -> Meteo-France to provide the code and initial + lateral boundary conditions for a few situations