

## **Minutes of side meeting of data assimilation**

### **ALADIN Workshop / HIRLAM All staff meeting, Madrid, 3 April 2019**

The meeting was organized and led by Roger Randriamampianina (RR). There were 22 participants from Météo France, ALADIN/LACE and HIRLAM consortia. Ad-hoc agenda included several topics as proposed by the participants.

#### **1) Slant total delay (STD) assimilation**

Roger welcomes testing of STD in LACE countries (Austria, Slovakia). It was agreed that we would expect phasing of the current code in newer (upstream) cycles in order to keep it alive. Roger explains that Siebren de Haan (SH, the author of STD code) is currently busy and that other colleagues may help here rather than wait. Florian Meier (FM) and Michal Nestiak (MN) mention constraints in their countries (end of project in Austria, PhD in Slovakia). Benedikt Strajnar (BS) expresses the idea of organizing a LACE-funded stay of Martin Imrišek at KNMI to pass knowledge.

#### **2) Temp – correct positioning**

A question was raised if it is possible to use already the exact position radiosonde data. RR answers that it is available in BUFR format and HIRLAM have implemented its usage in the Harmonie system.

#### **3) Coordination**

Yong Wang (YW) asks about the status of coordination and information exchange between LACE/ALADIN and HIRLAM. RR answers that the practice of organizing videomeetings proved to be successful and gives an example of such meeting on all-sky radiances where also MF took part. He proposes that optimally we should have 2 videoconferences per year.

#### **4) Initialization**

The spin-up issue was raised by Spanish colleague (Angeles) asking what is the best way to mitigate it in high resolution systems. FM mentions the need for a representative B-matrix. MF improved the spinup through EDA. An idea emerged to form a small group to discuss the best practices to compute the B-matrix (composed of Pau, Florian, Tonda, Roger, Beni, Wafa, and Katalin). Wafa explained the computation for Morocco: they chose 3 different weather groups with interesting phenomena ( $N > n_{lev}$ ), studied them separately and finally used the average which should sufficiently represent all weather types.

Conclusion: RR organizes a video meeting on this topic, inviting also Pierre Brousseau from MF.

#### **5) Super-modding**

The idea of super-modding was explained and experience with ECMWF and AROME in combination with Ascat observations was also presented. The coding part needs to be done, but there are open questions such as how to choose appropriate horizontal length for super modding. It was commented by Marcos, who referred to an earlier study with IFS, that EDA may not be realistic, compared to diagnostics with scatterometer data and that representativeness either of observations or the model is a big issue which makes assimilation difficult.

## **6) Sharing contributions between consortia**

Within this point, it was discussed how to make the contributions available to the whole community on the already opened case of STD. It was emphasized by LACE colleagues (AT, BS) that people should make effort to contribute to the latest MF repository rather than just phasing it to the currently operational HIRLAM or ALADIN cycle to make their work useful.

## **7) Coordination on the common Rolling work plan**

Finally, as a continuation to item 3), Alena Trojakova proposed discussion on the coordination between ALADIN and HIRLAM on the common Rolling Work Plan (RWP). YW mentions that one issue was to create a common plan, and now we should aim to work in common. RR mentioned that he was contacted by MF to discuss plan for the upcoming years and emphasized that we should carefully discuss the plan within HIRLAM and LACE rather than rush to filling the items. Unlike LACE with a quite firm planning structure, this was the first time to make a very concrete plan in HIRLAM. EK said that on the surface side the RWP was formally filled without putting a more detailed plan on paper. BS expressed his opinion that the RWP it is just a summary but behind we should have a much more concrete work plan. RR proposes to have one responsible person for each of the items in Rolling plan, who should coordinate the work on that item. RR also expressed the wish that LACE colleagues would attend more frequently the HIRLAM working days (as somebody from HIRLAM usually comes to LACE DA working days). MF do their best to join the HIRLAM WW time to time. LACE colleagues pointed to their travel-budget restrictions but generally agree that such information exchange and coordination is welcome.

Conclusion: Roger discusses the common planning between LACE-ALADIN-HIRLAM DA groups on the Friday CSSI meeting.

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