

ALADIN status overview

Piet Termonia

ALADIN workshop/HIRLAM ASM

7/4/2014, Bucharest



Organizational/coordination aspects

- Cy38 implementation in all ALADIN partner countries We should aim at switching all together (except a few who are busy with the acquisition of a new machine).
- The definition of the ALARO-0 baseline. Thanks to Radmila: “good job!”
- The Newsletter started a new life as a common ALADIN/HIRLAM newsletter, including the Tour d'ALADIN. Also some talks of this workshop may become subjects for the next Newsletter.
- Convergence process ALADIN/HIRLAM. New MoUs at the end of 2015. Work to do!
- We had a very good LTM meeting last year during EWGLAM in Ankara. Thanks to the efforts of Mariska. Let us have a good one here.





Introduction

Tilly Driesenaar and Patricia Pottier

This is the first edition of the combined Newsletter of the HIRLAM and ALADIN consortia. We decided to join forces because the researchers from both consortia are working closer and closer together. Furthermore, the number of contributions is continuously decreasing because we publish increasingly in peer reviewed literature.

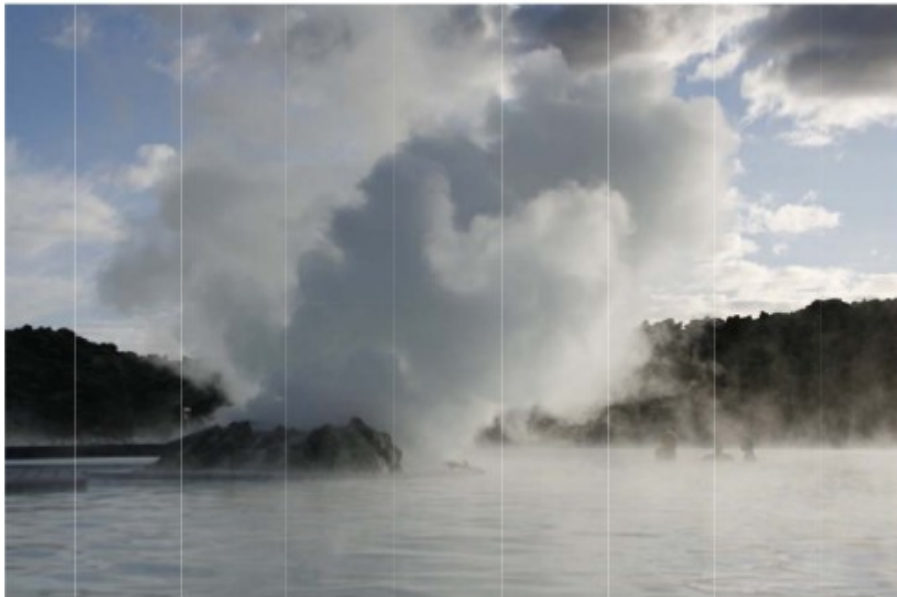
This Newsletter is devoted to presentations made by the ALADIN and HIRLAM staff in the joint HIRLAM/ ALADIN Workshop/All Staff Meeting (ASM) that took place on 15-19 April 2013 in Reykjavik, hosted by the Icelandic Meteorological Organisation (IMO). We thank the staff of IMO for providing the pleasant and high tech meeting facilities at the Hilton hotel in Reykjavik. For the first time there we had live internet broadcast, which was appreciated very much by quite a number of distant followers who were not in the opportunity to travel to Iceland.

As usual the scientific part of the programme took place in fully plenary sessions. After a warm welcome by the Dr. Arni Snorrason, director general of IMO, there was a short opening session on Tuesday morning, in which overviews were given of the progress and status of the ALADIN, HIRLAM and LACE programmes. This was followed by six sessions. As usual we had the thematic sessions on data assimilation and use of observations, probabilistic forecasting and LAMEPS, dynamics, model physics, and system aspects and verification. And this year a session operational experiences was added. The programme is listed in Appendix A and the presentations can be found at <http://www.cnrm.meteo.fr/aladin>.

We hope you enjoy the first ALADIN-HIRLAM Newsletter!

ALADIN - HIRLAM NEWSLETTER

No. 1, September 2013



The Blue Lagoon, Iceland, by Jozef Vivoda

The joint HIRLAM All Staff Meeting 2013 and ALADIN 23rd Workshop took place in Reykjavik, Iceland, from April 11th till 15th 2013.

HIRLAM-B Programme, c/o J. Onvlee, KNMI, P.O. Box 201, 3730 AE De Bilt, The Netherlands

ALADIN Programme, c/o P. Termonia, IRM, Avenue Circulaire 3, 1180 Bruxelles, Belgium



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HIRLAM/ALADIN convergence

- GA (excerpt draft minutes):

**The GA agreed on going toward a common governance, but not for the next MoUs.
The GA agreed on common meetings (HAC/PAC as in May 2013, next Council/GA).**

The GA asked the Task Force (the ALADIN, HIRLAM and LACE PMs, the chairpersons of HAC, PAC and CSSI) to set clear directives for the renewal of MoUs, considering still two separate MoUs. The Task Force should identify which points should be addressed in the common parts (to be presented and discussed at the next joint HAC/PAC meeting) and reported at the next GA/Council).



Strategy follow-up

As a reminder, during the strategic workshop in Brussels in 2011, the following points of attention were identified (and reported to the GA in 2011, Report_Strategy_meeting, see website):

	Tour d'ALADIN	Agenda of this GA	meetings
invest (seriously) in code design/development/maintenance,	Tk	5_Action on interfacing, 6, 8_potential_merge_with_HIRLAM	ALADIN workshop, meeting in Toulouse, several web conferences, Ankara system meeting
improving the operational suitability of SURFEX,	Tk	6_SURFEX	Long stay in Be, SURFEX SC
take care of collaboration,		8_potential_merge_with_HIRLAM	Task force meetings, PAC/HAC, meeting with YW
make effort regarding external funding,	[opportunity]	8_SRNWP-EPS	Madrid meeting, SRNWP AC, EUMETNET STAC
“define” our end user.	Au, Cz, Be, Pl, Pt	5_verification, 8_SRNWP_V	Meeting in Lisbon, FR stay

Also from the strategy note:

Move to high resolution -> 1 km	Fr, Tn, and also Cz, Be		EWGLAM, 1 web conf organized by HIRLAM
DA of high resolution data	Hu, Hr, Mo, Si	8_OPERA	LACE DA meeting



Data Assimilation still missing ...

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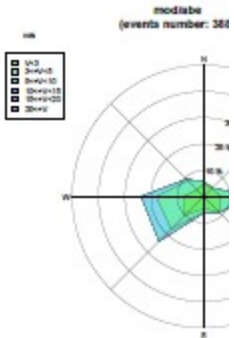
Some highlights (personally biased and not exhaustive)

- The AQMT (the former sleeping beauty) has been activated. We plan a forecasters meeting later this year to look at the quality of our applications. The content and dates should be fixed this week (LTM meeting!).
- The installation of the HARMONIE system in many ALADIN countries, BUT work needs to be done to address some ALADIN specific requirements.
- The implementation of ACRANEB2 in APL_AROME in the context of the physics-dynamics interfacing action. There was a “quick fix” (not taking into account the interface) BUT **in the future cycles ACRANEB2 should run under the Catry et al. (2007) interface!**
- Some steps regarding the evolution of the dynamical cores (VFE, HFE), see talks tomorrow.
- COST ES 0905, see talk of Jun-Ichi Yano today.



Example APMT Monthly Report (extract to give you an idea of the output)

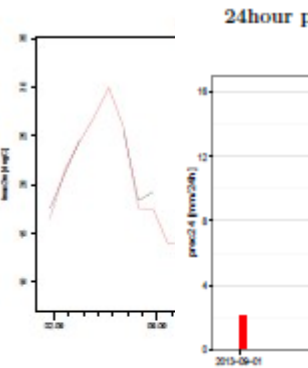
Wind rose for forecasted wind speed (all 6h ranges, station 6447)



BIAS air temperature at 2m (00+06)



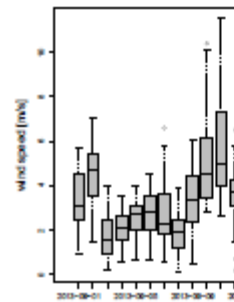
Maximum air temperature at 2m (mean ratios of stations)



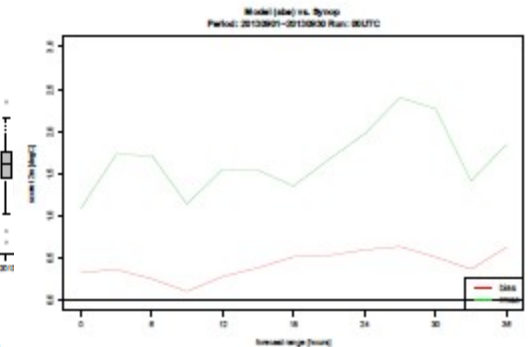
24hour precipitation (all number of cases in partic:

mod:obs	0<=prec<0.1	0.1<=prec<2
0<=prec<0.1	25	3
0.1<=prec<2	4	4
2<=prec<10	0	6
10<=prec	0	0
sum obs	29	13

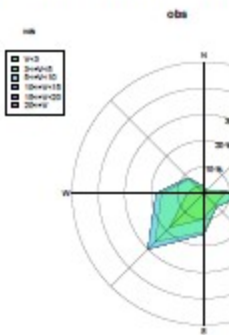
Boxplots of distribution of wind speed at 10m (all ranges, all stations data)



Scores for air temperature at 2m (all ranges, all stations data)



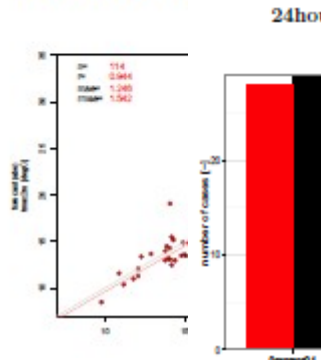
Wind rose for observed wind speed (all



RMSE air temperature



Maximum air ten

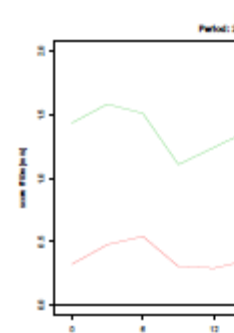


24hour

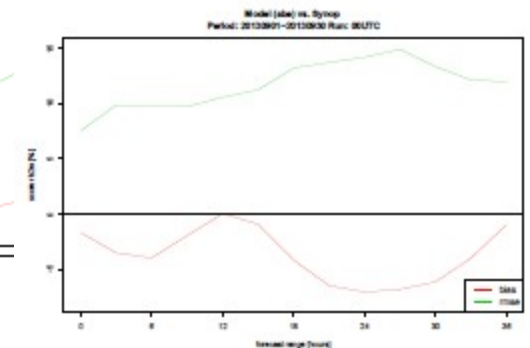
24hour precipitation (al

range:score	scores for partici
	BIAS
0<=prec<0.1	0.966
0.1<=prec<2	0.923
2<=prec<10	0.852
10<=prec	2
	events

Scores for wind speed :



Scores for relative humidity at 2m (all ranges, all stations data)

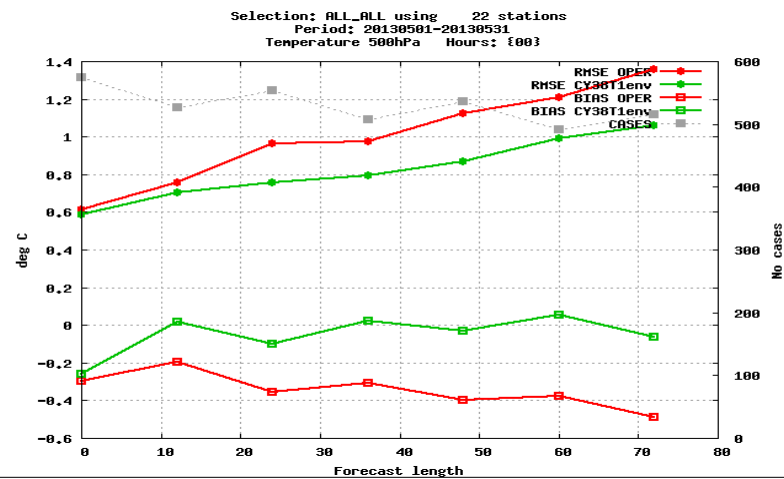
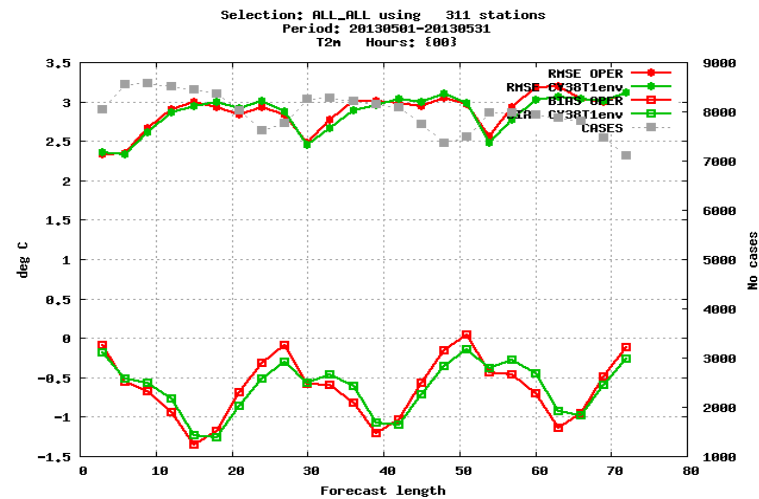


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HARMONIE system

Many thanks to Ulf for his visit to Ankara!

Compilation of the export version (38T1bf3) versus current operational model by using Harmonie tools



The physics-dynamics interface action

- Last year in Reykjavik there was a question: *what model are we running?* AROME, ALARO ...
- This led to a dedicated action.
- First “deliverable”: ACRANEB2 is phased to the AROME configuration (as requested by HMG last year in Reykjavik) by Jan Masek. The exercise for radiation is relatively easy compared to the “moist” part, BUT the “methodology” (stepwise approach, follow-up meetings with webconfs, meeting in Toulouse, care of cycles) works so far. Next step: turbulence
- Evolve towards a “WRF-ish” **HARMONIE Forecast System (HFS)?**
- This is also a **scientific testbed!**

Synthetic time table:

	Calendar (months/meetings)											
	2013						2014					
	5-6	WW Brussels (24-28/6)	7-9	CSSI/HMG (video)meeting	10-11	General Assembly (14-15/11)	12	1-4	ALADIN workshop/ASM	4-5	PAC/HAC	
Action 1: CPTEND_FLEX	█	█										
Action 2: r vs. q, T vs. theta	█	█	█									
Discuss analysis of action 2				█								
Action 3: Cleaning of APLPAR	█	█	█	█	█	█	█					
Action 4: Redesign of APL_AROME, APLPAR								█	█	█		
Report progress to GA about action 1 to 3.						█						
ALADIN WS/HIRLAM ASM: present analysis of action 4								█	█			
PAC/HAC: provide advice on the scenario's of action 4											█	

See talk of Daan Degrauwe today



Working Weeks

Working Weeks

- ALARO-1 WW in Vienna, 12-14 May 2014
- HARP meeting in Brussels, 24-29 March
- HIRLAM EPS working week 19-23 May, presumably Barcelona
- HIRLAM Radar working meeting, 12-14 March, SMHI
- HARMONIE system working week, tbd, Helsinki
- HARMONIE System working week in Bratislava, dates to be defined
- ECMWF workshop on scalability and HPC issues, 14-15 April Reading
- HARMONIE training course for newcomers, 15-19 September, presumably Norrköping.
- ALADIN-HIRLAM Forecasters' meeting in Ankara, date tbd
- HIRLAM EPS working week in November? Dates and place tbd
- DA/use of obs working week in fall (October?)
- ALARO baseline validation in Brussels, 2nd semester, date tbd
- HIRLAM Radiation working week, date and place tbd
- HIRLAM Surface ww, date and place tbd.
- HIRLAM Dynamics working meeting in Valencia, date tbd



I wish you an enjoyable and fruitful week

