



A Consortium for CONvection-scale modelling  
Research and Development

## 8<sup>th</sup> ACCORD LTM meeting

Thursday 05 October 2023,  
14h00 - 16h00 CEST  
visio-conference

### Minutes

#### Participants:

##### **Attending:**

Alexandra Craciun, Alex Deckmyn, Antonio Stanesic, Boryana Tsenova, Christoph Wittmann, Reima Eresmaa, Guðrún Nína Petersen, Gabriella Szépszó, Ghislain Faure, Ivar Ansper, Jan Barkmeijer, Javier Calvo, Jelena Bojarova, Jure Cedilnik, Mohamed Mokhtari, Siham Sbi, Jørn Kristiansen, Piotr Sekula, Radmila Brožková, Saji Varghese, Yelis Cengiz

Maria Derkova (CNA, chairing the meeting, also LTM), Claude Fischer (PM), Anne-Lise Dhomps (CSS), Alexandre Mary (IL)

##### **Excused:**

Haythem Belghrissi, Maria Monteiro

##### **Absent:**

Rune Carbuhn Andersen, Martynas Kazlauskas

#### 0. Opening and adoption of agenda (CNA)

0	Opening and adoption of agenda	CNA	
1	Introduction of new LTMs	CNA	
2	Upgrade of ARPEGE LBC	CNA	
3	Information about MF progress on e-suites	G. Faure	
4	Information about cycles	A. Mary	<a href="#">info link</a>
5	Information from PM+MG	PM	
6	Items taken up from 26 September - MF remote access via ssh - status of commitments to RWP2024 by LTMs	PM	<a href="http://www.accord-nwp.org/?Access-to-Meteo-France-machines">http://www.accord-nwp.org/?Access-to-Meteo-France-machines</a>
7	A.O.B.	CNA	
8	Next meeting(s)	CNA	

Agenda adopted.

## 1. Introduction of new LTMs (CNA)

Welcoming of Piotr Sekula for Poland.

## 2. Upgrade of ARPEGE LBC

Ghislain: on behalf of MF, apologizes for the delay for the LBC.

### **Ghislain's presentation:**

- About Arpege LBCs : updates unfortunately delayed.
- New domain / vertical resolutions / output frequency that were requested by ACCORD Partners shall be available from the Arpege e-suite by end of 2023
- MF wants now to provide all Accord partners LBC data from the MF e-suite (ie LBC from new Arpege data)
- MF wants to implement the LBC updates during an e-suite (so the LBC updates will use the new Arpege data)
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- This new approach will provide LBCs during several months in parallel of the operational LBC
  - hourly 102h outputs for 00Z and 18Z ; 54h for 06Z and 12Z ; all assimilations runs same as operations
  - e-suite LBC access through the same ftp site, same delivery time
  - To be real time by December 2023, from e-suite to operations by June 2024

### **Maria open the floor for questions:**

Radmila: Will the shorter +54 h ranges (at 06 and 12Z) be only for the e-suite? or also the operational data later on ?

Ghislain: all production runs will reach +102 h in operations. The shorter productions are only in the e-suite.

Maria Derkova: How will one distinguish the e-suite LBC data from the operational ones on the ftp server?

Ghislain: The e-suite data will have a different name.

Ghislain has produced a first set of data which can be available on hendrix:

/home/faure/vortex/fullpos/partners/GQ44/[YYYYMMDD]T[HH]00P/4dvarfr/

Runs from 20230926T0000 to 20230930T0000, 8 per day (4 "prod", 4 "assim"), from 0 to 102 hours every hour.

## 3. Information about MF progress on e-suites

### **Ghislain's presentation:**

E-suite : cy48t1\_op1 under progress

- Online poster at last week EWGLAM meeting
  - All Arpege applications in real time + Arome 3D EnVar
  - Other applications will be deployed by the end of the year

- In operations by June 2024
- 2 domains for Arome applications @500 m in near real time (2023) then in operations (2024)
- OOPS in 3DVar and 4DVar analyses
- Assimilation : 3DENVAR Arome, hybrid B matrix in Arpege 4Dvar
- Arome EDA : 50 members (instead of 25 currently)
- Physics : EcRad (Arome), use of SST from Mercator-Océan global model and enhancement of Tiedtke deep convection scheme (both for Arpege), change of aerosol and ozone climatologies (from CAMS, Arome)
- Dynamics : use of WENO interpolations for T and Q in stratosphere (Arpege)
- Observations : “all sky” assimilation of microwave obs, Arpege : GOES-17, CrIS mode «FSR», GNSS-RO (GRACE-C, Sentinel-6, Spire), scatterometers HY-2B & HY-2C (Arome), AMV HIMAWARI/AHI, Mode-S from EMADDC (Arome), WIGOS adaptations
- PEARP : revision of singular vectors and of the range of perturbed parameters
- Arome forecasts will be run using single precision

**Maria open the floor for questions:**

Maria: How are the new aerosols and ozone implemented? Is this change requiring a new climate file ?

Ghislain: the climate SW is updated for CY48t1, but the new aerosols are not in standard climate files, but in other external files.

Radmila: will it be the same aerosol types (currently 6 species in Tegen) ?

Ghislain: answer on the attached slide below

Maria: Who to contact to have some information in MF ?

Ghislain: Yann Seity at first, and if needed we will contact other colleagues from MF who have used the new aerosols data for the overseas models.

Jan: How are the AROME 500 m applications nested/coupled? To Arome-France or to Arpege?

Ghislain: To Arome-France.

Jan: Why are Singular Vectors still needed - EDA with 15 members shall be enough ?

Ghislain: The Arpege EPS team has been checking this in the past, and it seems the SVs are still relevant and beneficial. Among the possible reasons, there were improvements in the linearized physics for Arpege runs. For instance, the linearised Tiedtke scheme is used in the computation instead of the Bougeault scheme.

Radmila: Will Arpege also run in single precision?

Ghislain: no, there is a bug in CY48t1. CY49 is needed for Arpege single precision.

Radmila: Comment on using the WENO technique in Arpege in the stratosphere. Petra has tested it in ALARO without improvement. Has MF tested WENO in AROME?

Ghislain: doesn't know, to be checked with GMAP.

Piotr: How many classes are used in CAMS aerosols?

Ghislain: details on aerosol climatology

E-suite : cy48t1\_op1 aerosols

Arome-OM Oper (46T1)			Arome-OM Prochain Dble (48T1)		
Short Wave	Long Wave	Aerosols	Short Wave	Long Wave	Aerosols
Fouquart-Morcrette	RRTM	Tegen (2D clim - 6 var)	EcRad (SRTM)	EcRad (RRTM)	CAMS3D clim (12 var)

Radmila: Are the climatologies monthly ones ?

Ghislain: to be checked

*Post-meeting: Climatology files are independent from Arome climatology (netcdf files) and they are monthly.*

#### 4. Information about cycles

Alexandre:

<https://opensource.umr-cnrm.fr/projects/accord/wiki/Cycles>

Alexandre invites partners to provide feedback on the new way of contributing to the codes and the new way of validation based on davai. He also encourages ACCORD colleagues to watch and comment/review the code contributions on github.

The next IFS/Arpege coordination meeting with ECMWF is planned for November. This will be the next opportunity to discuss with ECMWF the planning of cycles in 2024.

Maria D. warmly thanks Alexandre for all the continuous support he provides for phasing and validation, starting with the three webinars that he organized, and then answering questions on the github forum and in individual emails.

Radmila: Agreed. Was a bit worried about the new tools but now there is very positive feedback from the Czech team.

#### 5. Information from PM+MG

Claude presented an overview of the preparation of the scientific strategy for ACCORD in the next phase.

##### 1. Information from PM+MG: Preparation of the 2026-2030 strategy - methodology

- STAC+MG:
  - Define and address high-level strategic questions
  - Try to derive guidelines on these questions, to be used in the next steps of the preparation
- form Task Teams (list to be agreed in STAC/Assembly), involve scientists

- the feedback from the Task Teams is used as an input for a Strategy Workshop in spring 2024
- the expected outcome of the Strategy Workshop is a fair good material, enabling a strategy drafting team to prepare the completed document, which will be reviewed by STAC and presented to the Assembly (by end of 2024)
- this methodology forms a mixture of some top-down and some bottom-up steps
- it has been approved by the Assembly on 26 June, along with the more precise timeline (listed in the next slide)
- ***you or people in your teams might be invited to the Task Teams, or you can make suggestions once the list is ready***
- ***you or experts in your teams might be invited to the Strategy Workshop***

## 2. Preparation of the 2026-2030 strategy - timeline

- STAC+MG to address the high-level questions, propose choices or answers, provide guidelines => STAC-6 on 25-26 October 2023
- Assembly-7 on 4 December: assess the outcome on the high-level questions and details on the next steps
- Task Teams (TT) are formed and work during the winter, using the outcome of STAC+MG as strong guidance. The material from the TT is an input for the strategy workshop => TT output ready for April 2024
- A strategy workshop meets in spring 2024 (May?), participation is on invitation only. The outcome of the workshop is an input for the strategy drafting team
- the spring 2024 Assembly is presented with a progress report and the organization of the (final) drafting steps
- the strategy drafting team works during the summer 2024 => draft strategy document ready for October 2024, to serve as a preparatory document for STAC in the autumn 2024
- the end of 2024 Assembly could then approve the final version of the strategy

### **Maria opened the floor for the discussion.**

Radmila raised a few questions, commented or complemented by other participants and by Claude:

- we should assess what was achieved, how we are fulfilling the current strategy. Claude: the MG decided to formulate an “MG-roadmap” to transpose the strategy content into goals and milestones, in a fairly simple manner though. MG makes its own reviewing of this roadmap (what did we achieve, etc.) and this material is regularly presented to STAC (it will be shown at the next STAC for instance)
- there is not enough information given to the teams about the high level questions, how can teams see them and provide feedback ? Radmila feels that a bridge is missing to communicate between the STAC+MG and the LTMs. Claude: Indeed it's important that all members are well informed about the procedure and the progress. The high level questions are being addressed by STAC+MG. Regarding the link with the teams, STAC members represent their families (MF, Hirlam, LACE, Aladin-MoU5)

and they should communicate with the teams they represent. Saji complemented that indeed he had been doing so recently with Hirlam correspondents (Jan: make sure you reach out to beyond HAC members). Christoph confirmed he would distribute the STAC6 preparatory documents to LACE correspondents. Claude: each family who has a specific structure should use it as most suitable, for Aladin MoU5 members the exchange is by individual STAC members

- What will be the scope of the strategy document ? Claude: scientific and technical only, no organizational or governance aspects in it (this will be addressed a bit later). Radmila: will international cooperation be part of the strategy document? Claude: no indeed, only scientific content (goals, context, scope, directions to go). The international cooperation aspect which will be addressed by PAC on 10 October, might actually be taken up within the organizational aspects and in the preparation of the MoU2
- participation to the strategy workshop should be equal across all families
- Radmila asked whether the Strategy preparation is following the Destination Earth (DE) outcomes and strategy? Claude answered that “yes”, ACCORD should take into account DE as an element of context and the ACCORD strategy should position itself with respect to some of the DE targets. Conversely (the “no ” side of Claude’s answer), DE has a strategy oriented to Services and a work structure that is inline with the duration of each phase and the definition of committed Deliverables. This way of organizing goals, milestones and work plans cannot be transferred to ACCORD. So we should not “copy-paste” goals or work plans.

Radmila furthermore expressed the feedback from CHMI scientists who fear that the readability of the code is worsening with the significant re-factoring.

## 6. Items taken up from 26 September

Claude reminded the new remote access procedure to MF’s HPC for external users.

- information for teams (and staff) who have remote access authorization to MF computers:
  - the ssh access mode will become the only possible mode to access MF machines for external users in October (the "old" PARME servers will be shut down)
  - For renewal, a new form is on the ACCORD website:
    - <http://www.accord-nwp.org/?Access-to-Meteo-France-machines>
    - Message to all teams: please use the file, fill it with your teams and send them to Eric Escalière with no delay (only 1 country send his form so far)

Claude and Anne-Lise provided the last figures regarding filling the manpower commitments tables for the RWP-2024. A **big thank you** to all LTMs, as a large number of them had provided their figures between last week’s meeting (26/09 hybrid and in Reykjavik) and until yesterday 4/10.

- status of commitments to RWP2024 by LTMs:
  - 22 countries have filled their table, fully or partially

- please react now if your filled manpower commitments are not yet completed (Sweden, Morocco, Austria, Slovenia opted for needed adjustments - namely due to UR duties)
- for all, most urgently for those who haven't yet provided their commitments: we suggest to shift the DL to 9 October latest (then we will use the figures to prepare the committed manpower tables for STAC)

Maria opened the floor to comments. Mostly, the discussion focused on the role and nomination of the URs which was presented on 26/09.

Jelena explained that SMHI would at first not nominate a UR, as the work seems like being a double work with respect to the user feedback organized within MetCoop. She pointed out that in MetCoop this work has a direct link with the operational duties, which seemed to better fit the idea of user feedback, whereas in ACCORD there is no such operational duty or commitment.

Jan confirmed a similar discussion took place at KNMI. Seems like it would be double work. There's already a committee in UWC-West that will deal with such operational feedback.

In ACCORD, should that perhaps be rather a task for the LTMs ?

Nina: Not the job of the LTM. It's a specific task, but not clear whether the UR could be a joint person for UWC-West altogether ? (currently, the decision was rather "no" common UR for UWC-West, however should this be reconsidered ?)

Jørn commented that the experience, in a similar structure, has been very positive in Hirlam in the past, under the leadership of Bent Hansen Sass. He reminded that the Hirlam HAC was very supportive to the proposal of the URs in ACCORD.

Claude stressed that within these comments, there were a few relevant points made:

- for groups who already organize user feedback for their own needs: they could think of nominating a single person, but then make sure this UR gets enough time allocated (by his/her home institute, in the end)
- important to clarify with each UR who fulfills such tasks in an operational context, that in the context of ACCORD there is no operational commitment involved. The ACCORD/MG will select and reformulate scientific questions out of the use cases, and formulate specific tasks in the RWP to address them. However this process remains in the limits of ACCORD's mandate (not operational, however, to ensure that the common code systems are developed taking into account the users' needs and feedback). There's indeed a difference of mandate at stake here

Radmila confirmed that CHMI will soon nominate its UR.

Reminder to LTMs: when you have a name, provide it in the "[Information4LTM](#)" shared file (there's a sheet there).

## 7. AOB / Next meeting(s)

Jure asked whether an electronic signature on the user form is valid? Jørn commented that they were using electronic signatures in the past without problems. Ghislain confirms it is OK.

Mariska asks whether there is any official installation of the ACCORD codes on the Atos machine at ECMWF, and who maintains it?

Alexandre comments that there exists an ACCORD generic user on Atos, thus such a code can be installed there. A code for davai runs is installed under Alexandre's user, starting from CY48t3. Perhaps CY46t1 is under Ryad's user?

Claude suggested planning another LTM meeting before the ASW-2024. We will make a poll for the period [22 Jan - 23 Feb] or so.

Potential topics: updates on DEODE next phases, e-suites/cycles, update on preparation steps of the next scientific strategy etc. (tbc)

Jelena mentioned that it could be interesting to have a forum where members could discuss potential partnerships for external Calls. Claude answered that this could be a proposal to further consider and to discuss.

Jelena suggested Claude and Anne-Lise meet with her next week, in order to start discussing the preparation of the ASW-2024. We will look for a 1h slot next week.

=> PM+CSS to suggest time slots to Jelena.