



A Consortium for CONvection-scale modelling
Research and Development

9th ACCORD LTM meeting

Wednesday 14 February 2024,
10h00 - 12h00 CET
video-conference

Minutes

Participants:

Attending:

Mohamed Mokhtari (Algeria), Christoph Wittmann (Austria), Alex Deckmyn (Belgium), Boryana Tsenova (Bulgaria), Antonio Stanesic (Croatia), Radmila Brožková (Czech Rep.), Tommaso Benacchio as deputy LTM for Denmark, Ivar Ansper (Estonia), Reima Eresmaa (Finland), Matthieu Plu (France), Gabriella Szépszó (Hungary), Guðrún Nína Petersen (Iceland), Eoin Whelan and Colm Clancy as deputy LTM for Ireland, Rimvydas Jasinskas (Lithuania), Siham Sbi (Morocco), Wim de Rooy (Netherlands), Piotr Sekula (Poland), Maria Monteiro (Portugal), Alexandra Craciun (Romania), Jure Cedilnik (Slovenia), Javier Calvo (Spain), Jelena Bojarova (Sweden), Wafa Khalfaoui (Tunisia), Yelis Cengiz (Türkiye).

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

Excused and represented:

Rune Carbuhn Andersen (Denmark), Saji Varghese (Ireland)

Absent:

Jørn Kristiansen (Norway)

0. Opening and adoption of agenda (CNA)

0	Opening and adoption of agenda	CNA	
1	Introduction of new LTMs	CNA	
2	Feedback from the 9th ACCORD Assembly	PM	
3	Preparation of the scientific strategy for the next phase of ACCORD	PM	
4	Update on DAP2024	PM/CSS	
5	Info by CSS	CSS	
6	Update on cycles	A. Mary	CY49T1

7	New IFS-Arpege coding norms	PM/CNA	
8	Update on MF e-suites	CNA/F-LT M	
9	A.O.B.	CNA	
10	Next meeting(s)	CNA	

The agenda was adopted.

1. Introduction of new LTMs (CNA)

Mariska welcomes new LTMs:

Wafa Khalifaoui replaces Haythem Belghrissi for Tunisia

Wim de Rooy replaces Jan Barkmeijer for Netherlands

Rimvydas Jasinskas replaces Martynas Kazlauskas for Lithuania,

Matthieu Plu and Alexandre Mary replace Ghislain Faure for France

and for Denmark, while Rune Carbuhn Andersen stays the LTM, Tommaso Benacchio becomes deputy instead of Bent Hansen Sass.

2. Feedback from the 9th ACCORD Assembly

Claude presents the feedback from the last Assembly:

- RWP2024 and budget for 2024 have been approved.
- Code refactoring remains an important topic (SPTR).
- Members welcomed the efforts on R2O and O2R, as well as on implementation of new working methods. Assembly expressed its overall satisfaction on the progress made by ACCORD building-up as a consortium.
- Extension of international collaborations in ACCORD:
 - the Members confirmed no geographical limitation regarding membership,
 - the link with ECMWF will be addressed in a dedicated ACCORD/ECMWF management-level discussion,
 - work in progress: prepare a strategic paper on this topic for ACCORD

Mariska thanks Claude and opens the floor for LTMs.

No comments

3. Preparation of the scientific strategy for the next phase of ACCORD

Claude explains that the Assembly has approved the continuation of the strategy preparation.

Hence, the MG has been forming the five task teams by inviting experts from the teams.

- each TT is composed of 12-15 participants i/o to trigger proactive discussions,
- with a wide and fair representation by all families in ACCORD,
- PM/MG will propose an explanatory document + a cover letter as input for the TT

In parallel, a set of high-level questions will be prepared and sent to all Members (Task Force in liaison with Bureau) via the Assembly representatives AND the LTMs. Claude expects to be able to send out the questionnaire by the end of February.

A strategy workshop will be held in Toulouse 21-24 May, with participation on invitation (MG, TT co-chairs, some invited experts).

Claude shows the table of TT composition (*note: only the task team definition and the list of co-chairs is added hereafter, the list of participants is work in progress - contact the PM in case of any further question*)

Task Team	Names of co-chair (confirmed)
Forecast model and coupling to other Earth model components (including surface)	<i>3 co-chairs (phy, dyn, surf, focussed on interactions and consistency)</i> Patrick Samuelsson, Meto Shapkalijevski, Ludovic Auger
DA and coupled DA (including surface and use of observations for DA)	Benedikt Strajnar, Loïk Berre
Code & system including testing strategy from unit to integrated	Daniel Santos, Alex Deckmyn, Denis Haumont
EPS & probabilistic forecasting	Henrik Feddersen, François Bouttier
MQA including user feedback	Carl Fortelius, Andre Simon

Claude presents the timeline for the Strategy:

- 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, give orientations, discuss and decide on the next steps
- Task Teams (TT) are formed and work during the winter, using the outcome of STAC+MG and Assembly as strong guidance. The material from the TT is an input for the strategy workshop => TT output ready for end of April 2024
- February-April: the HLQ questionnaire will be prepared and sent to the ACCORD Members (to Assembly with cc to LTMs). Feedback is expected by the end of April
- A strategy workshop meets on 21-24 May, participation is on invitation only. The outcome of the workshop is an input for the strategy drafting team
- STAC (on 5 June 2024) and the Assembly (on 3 July 2024) are 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 (on 9 Dec'24) could then approve the final version of the strategy

Mariska opens the floor to remarks and comments.

Jelena: I would like to have the information and the timeline that are on the slides.

Claude: The information will be in the minutes of the meeting, but the table of participants still is a work in progress.

4. Update on DAP2024

Claude reminds that the DAP2024 contains all actions funded by ACCORD. This includes committee meetings, MG meetings etc. More specifically, the DAP also contains the suggested actions regarding the participation in WW and the scientific visits funded by ACCORD. For administrative as well as for practical organizational reasons, we want an official DAP version, signed by the PM, to be ready by the end of February or so every year. Some additional actions will be discussed by MG by about June (this is possible and provides some more flexibility in the planning).

The DAP2024 was sent to LTMs on Fri 9 February. Claude asks LTMs to cross-check the actions where their team or institute are mentioned and to get back to PM/CSS and relevant MG members in case of questions.

- DL for feedback by LTMs: Thu 22 Feb
- The aim is to finalize the document, with signing by the PM, by the end of February
- Specific notes:
 - Daniel and Alexandre propose each to visit an ACCORD member institute for local training to GIT etc. (2-3 days visit). If any specific interest, contact them with copy to PM+CSS

Mariska opens the floor for questions/comments.

No questions.

5. Info by CSS

Anne-Lise reminds that the All Staff Workshop Registration is open until the end of the month.

About the Newsletter 5, she emphasizes that she received only one article so far, and asks ACCORD people to send her their contributions over the next few weeks !

She reminds as well that scientific visits should be documented. In 2023, on 27 visits, she received only 3 reports.

- With Claude, she proposes that visitors who haven't produced a report write a few pages for the newsletter.
- For 2024, please remind your visitors that they have to produce an activity report.

Anne-Lise and Claude thank the LTMs for their manpower registration, everybody was in time for Q4/2023 and only a few changes were made afterwards.

Mariska: Asks whether the stays with missing reports concern ACCORD-supported visits or also others like LACE-supported ones.

Anne-Lise: Both, as long as they are listed in the DAP2023.

Piotr: What are DAP actions ? What about LACE-related scientific visits ?

Claude: DAP actions are those the MG proposes to fund via the ACCORD budget.

Radmila: for LACE we take care that the reports are written.

Radmila: What about WW ? It could be nice to have a report as well as these are financed from the ACCORD Budget

Anne-Lise: specific reports are not asked for WW at the moment, but information, presentations and outcomes of WW are on the ACCORD wiki website.

Mariska: Maybe we could ask for a 1 page summary for the newsletter.

Claude: Agree to discuss this with the MG members as they are often involved in organizing WW. At the moment there is some information on the wiki, but is it indeed on a voluntary basis.

Tommaso: took the floor to present himself as the new LTM of Denmark. He took over after Bent retired. He thanks Anne-Lise and Claude for helping for the transition.

6. Update on cycles

Alexandre presents a few informations about cycles:

- The declaration of CY49T1 was announced on 26 January 2024
- CY49T2 (refactoring of SI/SL + ecRad1.6 (NEC OK)) to be declared very soon
- CY50: merge to be started right after 49T2, expected declaration before summer. Visit to ECMWF to enhance mutual validation.
- CY50T1: Sept.-Dec 2024 ?

Alexandre calls for feedback on new working practices (Davai + github) for the ASW.

Alexandre gives the link to the recorded webinar on the use of the ACCORD source code forge, here:

http://www.umn-cnrm.fr/accord/IMG/mp4/webinars_accord_forge_davai_with_cy49t1_2_.mp4

Mariska opens the floor.

Radmila: I missed information about plans regarding an export version based for instance on cycle 48. What is being planned ?

Alexandre: There isn't yet any firm plan for preparing an export version. Inside ACCORD, a discussion was started in a small committee to try to understand to what extent the concept of an export version could evolve, taking into account the first steps toward new working practices. However this discussion proved to be difficult taking into account the several requirements and the still existing "old" working practices.

Claude: confirms that the small committee discussion on the design (or the redefinition) of an export version concept was left open last autumn, with no short term conclusion. Then also other management priorities took over, which eventually brought the whole discussion to a temporary stop. In ACCORD, we are in this transition process from our past (or present) working methods, which also sometimes differ, to some new and common methods. We would like to try to redefine an export version concept by adapting and making progress on common tools and methods for validation. In the former Aladin definition, an export version was a code that for instance had been validated via at least one or two weeks of DA cycling including some simple statistical scores.

Radmila pointed out that the export version is not only important for the partners because of its level of validation and readiness for local porting. It also is important because it provides a common basis that a team can use to make available and share scientific development with other teams.

Alexandre: The GitHub forge should become the normal vehicle for scientists to make their developments available, especially in research mode. GIT offers the functionalities to identify code developments by the labeling of versions. Deltas of codes also readily are obtained, and some technical information can be exchanged via the GIT documentation and notification tools.

Radmila: finds that it is more difficult to share the development with other members using such a flexible approach, also the level of validation of codes in branches and in their base versions might be lower than what people are used to in the export version.

Radmila also pointed out that it is not only about exchanging R&D codes. There also is the issue of making available and sharing bugfixes (useful for local operational codes) and small incremental code deltas in view of a rapid local implementation. It's very important that we can continue to share such bugfix information efficiently.

Claude suggested that a way forward could be to disentangle short term and mid-term goals. We could perhaps discuss at MG-level how to work toward a CY48-based "export version" with some of the currently expected level of validation (for instance a cycled DA with some simple statistics) however without slowing down our other efforts to organize the ACCORD code management and the R2O process according to the proposals drafted in the white paper (2022-2023: improve on how we validate the codes in a common effort, improve on how we document code releases etc.).

Radmila noted that this was not enough yet. Partners also will need to have access to very recent code versions that include code refactoring, in order to prepare for HPC procurement at home. So one also has to know which version to use, where to find it, and how much it was validated. Radmila also repeated the feedback from some of the scientists who find the refactored code more difficult to read than before. She considers that this shows that the refactoring is not following the idea of "separation of concern", since indeed scientists are affected by the code changes.

Claude answered that this was indeed adding on other requirements. Now the LTMs are expressing a certain variety of requirements regarding code versions and export versions. These will have to be taken up at ACCORD management level, but will require some time to be processed before a proposal can be made.

Claude proposed an action on him to continue addressing the issue of "code versions, export versions and requirements" at the ACCORD management level.

Mariska suggested that feedback could be given at the next LTM meetings on this topic. Claude agreed but insisted that not all different aspects might find a quick answer.

Jelena: at the ASW when, how long will take place the LTM meeting.

Mariska: will be covered later - item 10 of the Agenda.

7. New IFS-Arpege coding norms

Claude introduced the new coding norms document that is in preparation by ECMWF and MF. We should circulate this document across all teams in ACCORD, and we are offered the possibility to comment on it and provide feedback to them.

- A new coding norms document has been prepared by ECMWF and MF
- The draft document is available here https://opensource.umr-cnrm.fr/attachments/5570/IFS_coding_guidelines.pdf and also here (provided you have a user access to the ECMWF website): <https://sites.ecmwf.int/docs/ifs-arpege-coding-standards/fortran/>
- All teams are kindly invited to check this doc, and make comments. The LTM should use the file shared in this link to edit the questions or the comments collected from each team: [Comments on new IFS-Arpege coding norms](#)
- The deadline to provide your comments is Thursday 7 March 2023
- Claude, Alexandre, Daniel, Daan, Mariska will regularly check this file and an ACCORD-common feedback will be prepared for ECMWF and MF.

Radmila comments that the proposed deadline for feedback is too short due to the heavy calendar. Claude agrees and suggests it to be extended until the end of March. However, any early feedback is welcome.

Nina: asks for the links.

Anne-Lise: All links will be in the draft minutes of this meeting.

8. Update on MF e-suites

Mariska explains the status of the testing of the new LBC files from the CY48T1 e-suite, reminds the potential abort in ee927 and how to cure it. She noted that the “fix” was earlier implemented in Slovenia and in the A-LAEF system and is used for LBC files from ECMWF.

Maria: reported local test using cy43 had been ok, but she will double check.

Piotr reported: ok for cy43 by putting some lines in comments, and 2 weeks parallel run also OK.

Matthieu gives short status on the e-suite plans, including the expected timing of the switch of the CY48T1 e-suite.

Present e-suite « cy48t1 »

- All components are now running in the e-suite: ARPEGE (since April 2023), ARPEGE-EPS (since May 2023), AROME (since September 2023), AROME-EPS (since December 2023), etc.
- E-suite ARPEGE LBC files are on ftpr-pro-int.meteo.fr:
 - Hourly outputs
 - Maximum lead time +102h at 00Z, and +54h at 06,12,18Z (will be 102h when switch to operations)
 - new domains Antarctica, new vertical levels (Portugal)

- Operational switch foreseen in September 2024 or later (date to be confirmed, sure only after the Olympic Games):
 - e-suite LBC files will replace the present ones on ftp-pro.meteo.fr
 - Maximum lead time +102h at all initial times

Future e-suite « cy49t1 »

- cy49t1 was declared 26.01.2024, this is the basis for the next e-suite
- Innovations/contributions to be defined before summer 2024
- E-suite should start running early 2025 (and become o-suite early 2026, before change of HPC)

Mariska opens the floor for comments.

Radmila: at the last LTM meeting, we got information about the use of CAMS aerosols climatology with the ECRad radiation scheme in the Arpege and Arome e-suite, which makes it possible to use aerosols directly from an external NetCDF file. In order to be included in the climate file and thus available for other physics schemes, the aerosols fields need to be handled by the climake tool. This workflow however is not yet prepared. CHMI is very interested in this facility and the Prague team (J. Masek, A. Sljivic) is ready to help and work on an extension of the climake tool.

Matthieu: I will check with people in MF (Yann Seity, others) and provide feedback.

9. AOB

Claude informs partners that there will be a maintenance and upgrade of MF's two HPC clusters, and this upgrade has an impact on partners who have remote access authorizations on the research cluster:

- MF is making a system upgrade on the two ATOS clusters from 26 Feb through 26 March
- according to the current planning, the access to the research cluster "belenos" will be down on 26 Feb and in the week 4-7 March
- expect that research applications on "belenos" shall be slowed down in the period 18-26 March (when the operational suites will run on the research cluster)
- some other perturbations might occur during the whole period of the upgrade
- MF apologizes for these disturbances

Mariska opens the floor to comments.

Javier: Is it possible to know the plans in MF for 2026 about HPC ?

Matthieu: We don't know yet the architecture of the next machine. At the moment we are doing a RAPS, and the benchmark will be ready for next year. So tests will be made by constructors. We don't know yet about CPU, GPU, vector machine. We will have some GPU for sure for AI activities.

Radmila: What does the RAPS abbreviation stand for?

Alexandre: Real Application for Parallel System

10. Next meeting(s)

1/ during the ASW week 15-19 April.

- we envisage Tuesday 16/04, 2nd half of afternoon (date and time still to be confirmed)
- we suggest to agree on a 1h30 meeting max

2/ Another next LTM meeting.

- we will make a framadate poll to save a slot for a back-up meeting if we need it, in the period [24-30 April]
- potential topics for these upcoming meetings:
 - info about manpower registration or any other Support Team matter,
 - calendar of RWP2025 preparation, reminder of follow-up of DAP2024,
 - look out for candidates to host the ASW2025,
 - update on DEODE phase 2,
 - follow-up of discussion regarding the export version definition
 - all topics to be confirmed ...

Mariska: asks the LTMs to think about hosting the next ASW.

Mariska and Claude thanked the participants for the questions and comments raised during this meeting. The meeting was closed by about 11h45 CET.